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AMERICAN BUILDER

and Building Age

NAME REGISTERED U. S. PATENT OFFICE AND CANADIAN REGISTRAR OF TRADE MARK

AUGUST, 1938

60th Year

Vol. 60—No. 8

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MORE HOUSE FOR LESS MONEY

with **MIAMI CABINETS**

TODAY'S building dollar buys more bathroom cabinet value than ever before in the history of the building industry. Not only are the new "all metal and glass" cabinets far more attractively designed and better built of finer materials, but they are more easily and quickly installed.

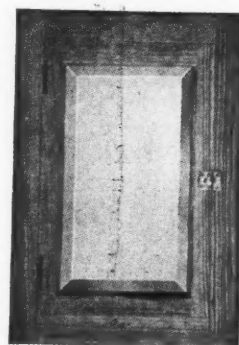
IN 1920, YOU PAID \$10 FOR THIS TYPE OF CABINET →

Sizes were not fully standardized, and it was usually necessary to paint and finish the cabinet on the job.



← IN 1926, YOU PAID \$14 FOR THIS TYPE OF CABINET

It represented a big improvement over the earlier models and was a good value in its day, but it provided no lighting or other electrical outlets.



"MIAMI Pioneers the Modern Bathroom Cabinet"

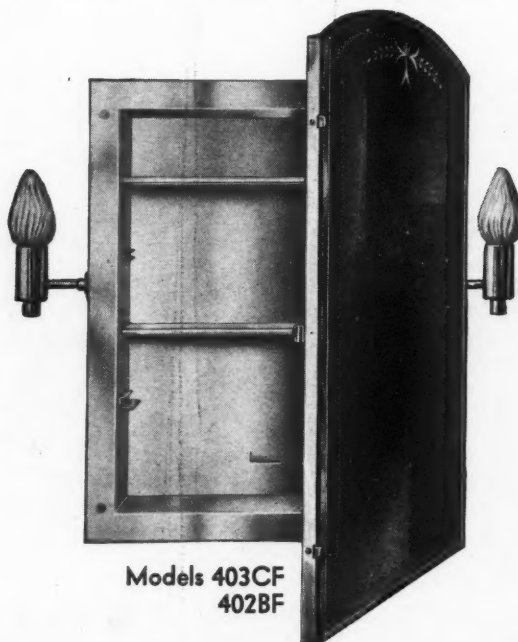
TODAY, You Can Buy This Chromium Framed Cabinet including brass, chromium plated, Colonial-type light fixtures with conveniently located switch—convenience plug for electric razor, curling iron or other electric appliances—all wired complete at the factory—for less than \$18 (saves cost of 3 electrical outlets).

Or You Can Buy This Cabinet Without Electrical Equipment, for less than \$10.

Year after year—MIAMI has introduced innovations in convenience and originality of design that have captured the imagination of home lovers . . . made MIAMI products style leaders of the industry. In this progressive designing, MIAMI has truly "Glorified the American Bathroom."

Warehouse Stocks in Principal Cities. Send for the new MIAMI Catalog.

See Our Complete Catalog in SWEET'S



Models 403CF
402BF

MIAMI CABINET DIVISION · The PHILIP CAREY COMPANY, Middletown, Ohio.

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PUBLISHER'S PAGE

How Building Led Recovery in Great Britain

GREAT BRITAIN recovered much more rapidly and completely from the depression than the United States. "Industrial production" in Great Britain in 1937 was 24 per cent larger than in 1929; in the United States it was 8 per cent smaller than in 1929. And it was *housing construction* that led Great Britain out of the depression and to new heights of prosperity in 1937, in the later half of which this country began sliding down again into the depths of depression.

Why and how housing construction led Great Britain out of the depression was shown by Harold Bellman, Chairman and Managing Director of the Abbey Road Building Society of London, in a recent address at Northwestern University. He said in part (*italics are ours*):

"As an initial step we put in power a broadly based National Government. * * * This was a basic factor in our subsequent recovery. * * * It provided a *foundation of confidence*, that indefinable and elusive, yet fundamental, prerequisite of a high degree of economic activity. * * * They prescribed a course of treatment which included a *restoration of national finances on a sound basis*. * * *

"The building boom, which by common consent was the backbone of our recovery, was *initiated entirely by private enterprise*. * * * In 1931 and 1932 output totaled just over 200,000 houses per annum. 1933 saw a marked improvement with output at 267,000. In 1934 there was a further increase to 329,000 * * * followed by a new record of 346,000 in 1936. * * * When our general economic structure was convalescent, private enterprise in house-building leapt a stage ahead with redoubled vigor and *gradually diffused its strength far and wide*. * * * Private enterprise has justified the appellation 'enterprise' in circumstances indicating that the system under which we live and work is not wholly without the qualities attributed to it in * * * the orthodox text books."

IN important respects economic conditions in the United States are similar now to those existing in Great Britain just before the British housing "boom" began. Business here is convalescing from the recent "recession." Railroad freight loadings, the best single measure, indicate business in general has improved about 10 per cent since the middle of May and is still gaining. There is great need for a huge amount of housing construction. It would involve so much and such widespread expenditure that it would "gradually diffuse its strength far and wide," as it did in Great Britain, and could lead this country, as it did Great Britain, to new heights of prosperity.

But if there is to be a real building "boom" in this country, it must be, as in Great Britain, "initiated entirely by private enterprise." It will be hindered, not stimulated, by continuance of huge government expenditures, whether on housing or other projects. Our government's part is to do what the government did in Great Britain: "restore national finances on a sound basis" and "provide a foundation of confidence"—confidence that private enterprise will *profit* from exercising initiative and enterprise in making investments necessary to revival of business.

THE British government and British private enterprise have shown us the way—and the British people, especially the British working class, have benefited enormously. Can we not learn from both their experience and our own entirely different experience during the last five years? Or shall we continue to so conduct our government and business affairs as to admit that we have become incapable of learning?

Samuel O. Dunn



"HOW DRY I AM!"

THEME SONG OF A LOT OF CONCRETE THAT NEVER HAS A CHANCE

HOW DRY I AM"—theme song of a lot of good concrete that never has a chance—simply because it isn't kept wet long enough for thorough curing action to take place. For want of enough time, many jobs are cured with "a lick and a promise." Yet, because present-day Portland cements are so efficient, strengths usually are adequate. But watertightness is something else again.

To be dense and watertight, concrete has to be kept wet 7 to 10 days—too long for most jobs; which is why 'Incor' 24-Hour Cement solves many a problem.

Because 'Incor' combines with water 5 times as fast; that means watertight curing in 24 to 48 hours, instead of 7 to 10 days. Curing is quick, easy, certain—sound assurance that well-made concrete will be watertight. Example:

Fish Hatchery (shown above) near Walhalla, S. C.; had to be watertight. Using 'Incor' 24-Hour Cement, concrete poured one day was service strong the next; that



meant faster form re-use. And thoroughly cured, watertight concrete was secured in a fraction of the usual time.

It pays to estimate with both Lone Star and 'Incor'. Use 'Incor'* where faster job curing saves money; otherwise use Lone Star Cement, the quality standard for over a quarter century. Write for copy of "Watertight Concrete." Lone Star Cement Corporation, Room 2230, 342 Madison Avenue, New York.

LONE STAR
CEMENT CORPORATION

*Reg. U. S. Pat. Off.

MAKERS OF LONE STAR CEMENT... 'INCOR' 24-HOUR CEMENT

AMERICAN BUILDER

AND BUILDING AGE

Letting the Public Know

A PROGRESS report as of July 27 shows the home building industry's "High Value" campaign, as offered and described in the June issue of this publication, sweeping on at an astounding rate.

Prominent daily newspapers to the number of 98 already have this series under way and some 400 additional newspapers have secured the campaign materials and are preparing to start.

This means that the home building interests in about 500 cities and towns will soon be feeling the stimulus of this powerful drive.

Both new home construction and old home remodeling are benefited by this campaign of public education in present-day home values and building opportunities, spread out in this way before the property owners and prospective home buyers and home builders in these 500 regions.

National Sponsorship, Local Application

This campaign sponsored jointly by *American Builder* and The Producers' Council, Inc., consists of a series of seven full page newspaper advertisements giving the public the encouraging information that they "can build better for less in 1938."

These public announcements are appearing in prominent local newspapers and are signed by local building industry firms that pledge efficient service, full value and satisfaction to the home seeking public.

Material dealers, building contractors, architects, sub-contract dealers, mortgage loan institutions and others directly connected with home building sign these local newspaper pages.

Leadership Is Rewarded

These full page advertisements carry added weight with local property owners and home building prospects because they are signed by these well known, responsible local firms and individuals; and at the same time these firms and individuals gain added standing because of being identified with such a high grade, constructive movement—everyone is interested in home building and in the pleasing news that now is a favorable time to buy or build "ahead of the boom."

As explained in the June *American Builder*, (pages 40 to 43) and again in July, (pages 30 and 31) this "High Value" public information campaign consists of a series of seven well-illustrated, interesting, and very convincing full page newspaper advertisements.

They were prepared by the J. Walter Thompson Ad-

vertising Agency, and have been pronounced by competent judges just about the best home building "copy" yet produced; the central theme is "Today you get 25% to 40% More Home for your Money."

Complete newspaper "mats" of this series are furnished free to any local publisher or local building industry firm; there is no expense involved in running this campaign except the cost of the white space as charged by the local newspaper.

One of the great needs of the home building industry has been to re-establish confidence among the general public that the industry is competent and dependable—able to produce good and satisfactory homes—and that today's building costs are *not too high*.

This *American Builder*-Producers' Council series of full page newspaper ads. gives the public exactly that information; it lets the public know; and renewed confidence, home building activity, re-employment and general business upturn are resulting.

Building Contracts Running Ahead of Last Year

F. W. Dodge figures, just released, for residential contracts let during the first half of July are \$40,790,000, an *increase* over the same period last year of \$687,000. Home building is surging ahead. This publication hopes that many more newspapers in many more communities will request this "High Value" campaign material. The complete portfolio and printing "mats" are free for the asking.

Many of the big metropolitan centers—New York, Chicago, St. Louis, Milwaukee, Detroit, Los Angeles, Washington—are already organized on this joint campaign; smaller cities and towns, as well, are showing a keen interest and are being particularly benefited by this organizing and publicity movement.

These go-ahead smaller cities, such as South Bend, Ind., Torrington, Conn., Medford, Mass., Lincoln, Neb., Binghamton, N.Y., Greensboro, N.C., Elyria, Ohio, Reading, Pa., Oshkosh, Wis., and hundreds of others have responded to this opportunity and are lined up with their local newspapers to run this series of pages.

Every state in the union is now represented; and the circulation of the newspapers being used is so extensive that their total coverage is estimated to be nearly one half the nation's entire population.

Thus the general public is being educated in the big values and satisfactory service that the home building industry is now offering. Letting the people know is good business—something that YOU should arrange for in your own town, if you have not already done so.

Club Plan and Building Exhibit Sell Homes in Schenectady, N. Y.

Better Homes Department Acts as Advisory Service for Home Owners. Coordinates Building Operations, Simplifies Buying

By JOSEPH B. MASON

"**H**OW do you do it?" I asked Ralph J. Blank, president of Grand Boulevard Estates, Inc., of Schenectady, N. Y. "What magic methods did you use to get more than 75 houses built and sold here in less than a year?"

His answer carried a lesson for every builder: "We established the complete confidence of the public in our organization," he said.

"We helped and advised the home owner and showed him 'how to go about it.'"

"We set up an efficient procedure to centralize the operations of the architect, builder and banker, and provided a headquarters where they could all get together with the home owner."

This was a rather brief answer for the complete, helpful home building service that Ralph Blank and his associates at Grand Boulevard Estates perform. But it was a starter. I soon obtained further facts about his "Better Homes Department," his club plan and the amazing building materials and equipment exhibit maintained in the club headquarters.

Ralph Blank, in addition to being president of Grand Boulevard Estates, is also president of Wagg, Inc., well known real estate brokerage, sales and management firm. Following a period of almost complete inactivity in Grand Boulevard Estates, Blank con-

ceived the Better Homes Department idea, which has proved extremely successful. The new program was based on a sound analysis of what was holding back building. As Ralph Blank put it: "We found that many lot owners and prospective lot owners were timid about launching upon a building program, *mainly because of lack of knowledge as to how to proceed.*"

"They needed a dependable, reliable source for consultation, guidance and advice, and were reluctant to depend upon any one interested party, such as an architect or a builder."

"Our Better Homes Department was the answer. It provides scientific assistance to owners, without fee or charge, in their selection of home plans, in making the house fit the budget, in obtaining the mortgage loan, and in selecting a contractor. It acts generally as counsel and adviser throughout the process of building."

He made clear that neither Grand Boulevard Estates nor Wagg, Inc., are in any sense acting as builders or architects. They merely serve as a coordinating service, but this service is an effective and efficient one that is more than mere talk.

Experience at Grand Boulevard Estates, as well as other developments has shown that one of the worst things that can happen to a prospective home owner with a limited budget is to fall into the hands of a certain type of "high-class" architect first. The architect would provide a beautiful set of plans which, in an alarmingly high percentage of instances, raised the owner's desires far above his ability to pay. The result was that when the bids came in the home owner was astounded to learn that he could not afford to build the beautiful house that had been pictured for him by the architect. Frequently the cost ran double his outside budget.

The result of this type of unfortunate experience killed many sales and made disgruntled, disillusioned enemies.

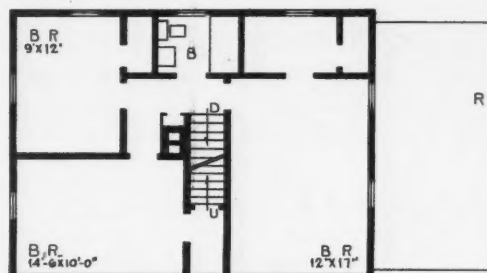
The first question the trained adviser of the Better Homes Department asks is, "What is the outside amount you can afford to spend for your house?" The individual's economic and financial status is discussed frankly



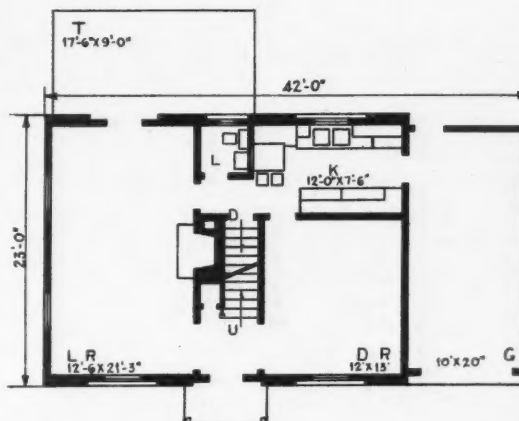
RALPH J. BLANK, president of the firm, Wagg, Inc., developers of Grand Boulevard Estates.



Home Building Center, Maintained in Club by Grand Boulevard Estates



SECOND FLOOR



FIRST FLOOR

and a *top figure* agreed on. The adviser then points out to the home owner all the costs that must be met and are so frequently overlooked by the architect—financing costs, mortgage tax, surveys, appraisals, grading, landscaping, walks, driveways, utility fees, and other costs that must be met on any job. These are clearly indicated and deducted from the amount the owner can afford to spend. The balance reveals what he has available for the house itself.

The Better Homes Department adviser then assists the home owner to select a type of house in keeping with his budget, and puts him in touch with reliable contractors

(Continued to page 84)

COLONIAL HOUSE with a modern flavor, located in Grand Boulevard Estates. - It was designed and built by Lansing and Allen, a successful young building firm with a number of homes in Estates. Cubic contents are 22,500.

AMERICAN BUILDER
True Cost FIGURES
FOR THIS HOUSE
ON PAGE

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SPECIFICATIONS include Thatcher air conditioner; Andersen windows, with Unique sash balances; Better-Built overhead door; G-E planned kitchen; U. S. Gypsum 4-in. rock-wool bat insulation; Vermont green slate roof; Thibaut wallpaper; Sargent hardware; copper water tubing; Toncan duct work; Rocklath.



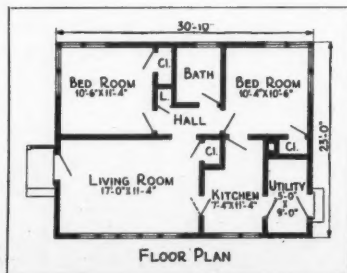
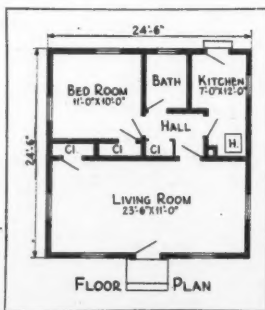
Washington Community

Eight Low Cost Homes in "Laboratory" Sponsored by Manufacturers and Dealers to Demonstrate Successful Housing for Families of Average Income

THE original project of the 1938 National Small Homes Demonstration is nearing completion at Fairway Hills, just outside of Washington. Sponsored by the National Lumber Manufacturers Association with some thirty building material manufacturer and dealer associations co-operating, this group of 8 low cost homes, ranging in size from 3 to 6 rooms, is calculated to serve as a model for similar demonstration home groups in one thousand or more other cities where local dealers, builders and manufacturers may join in such an educative display of present day low cost home building ability. Mr. C. R. French, director of information for these projects and a member of the Washington staff of the lumber association, reports tremendous interest from all parts of the country. About 7,500 sets of working plans, he states, have already been distributed, indicating that part or all of these "laboratory community" homes will be duplicated and serve as a reliable guide to good low cost home building in a great many cities and towns this year.

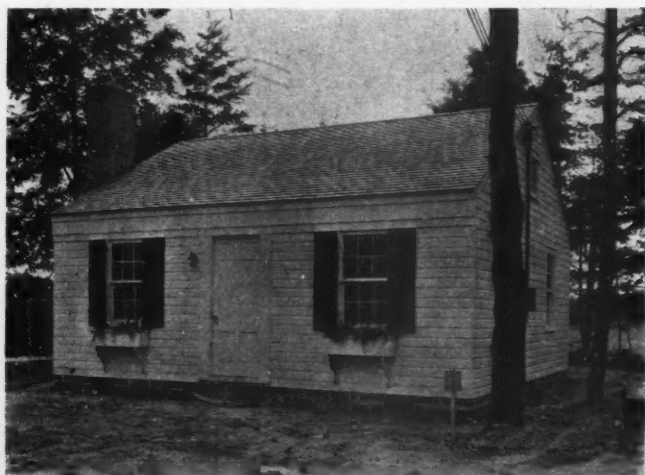
For the benefit of all who might be interested, *American Builder* presents photos of these 8 model homes together with dimensioned floor plans and complete *TruCost* estimating figures. Special features of these several homes follow:

HOUSE No. 1 (below) and House No. 2 (to right) are the smallest of the Model Community demonstration homes. Thousands of these will be built.



AMERICAN BUILDER
The Cost Figures
FOR THESE HOUSES
ON PAGE

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of Model Small Homes Takes Shape

This home in the "community" has been given a "modern treatment" with horizontal boards below the windows and plywood above. Plywood has also been used for paneling the living room. A utility room located next to the kitchen may be replaced by a stairway if a basement is desired. This house represents one of the most efficient two-bedroom plans in the "community."

HOUSE No. 3 offers efficiency on one floor with the traditional basement for housing the heating plant. There are two bedrooms, living room, bath and kitchen with the latter providing ample space for dining. The exterior corner decoration, the front door and the shutters are fabricated from stock log-cabin siding patterns; and shadow lines in the shingle roof are produced by double courses of shingles as a variation in roof appearance.

If built without a basement the space now occupied by the cellar stairway might serve as a heater room, or in case a fireplace is built and no other heat required, this space may be added to the bedroom or kitchen.

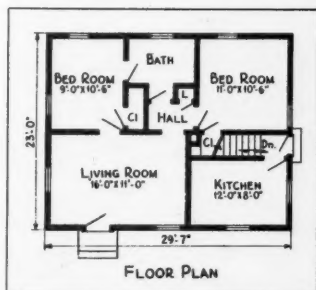
Plaster, with a special wallpaper specifically designed for small homes by the wallpaper industry, is used in both bedrooms and living room.

HOUSE No. 4 offers practically every facility ordinarily associated with six-room homes, except separate dining space, and at a cost much lower than the general average. It features the same interior wall treatment as No. 3 in its three bedrooms, large living room, kitchen, bath and utility space. These facilities are made possible by using the same money for the additional above-ground area that was spent for the basement in No. 3.

In comparison with House No. 1 this home, for just a few dollars additional, offers two extra bedrooms and, if a dining room is desired, an end of the large size living room may serve as such without inconvenience or additional steps.

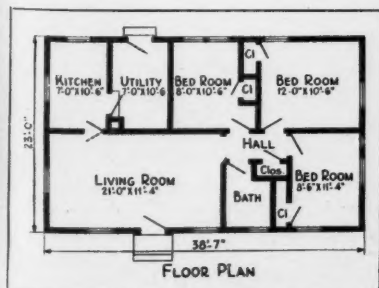
HOUSE No. 5, built along novel and unusual lines, has a basement built of wood which is brought up out of the ground, thus saving excavation and masonry cost.

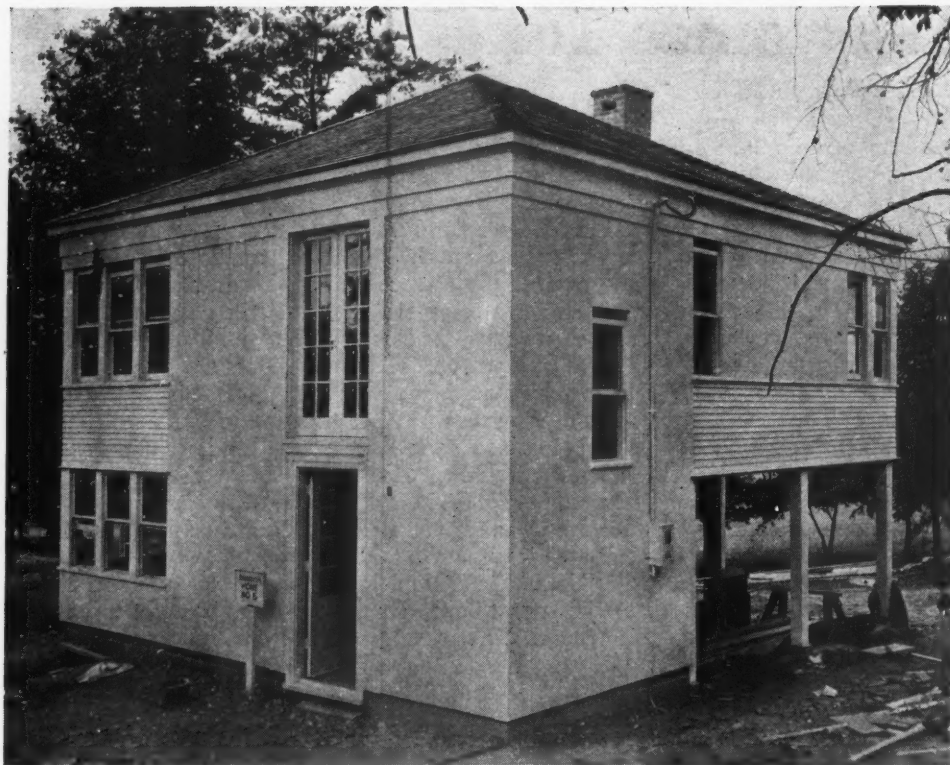
HOUSE No. 3 (right) and House No. 4 (below) as built at Fairway Hills outside of Washington are practical low cost homes. They prove the ability of local builders to produce what the people want.



AMERICAN BUILDER
The Cost FIGURES
FOR THESE HOMES
ON PAGE

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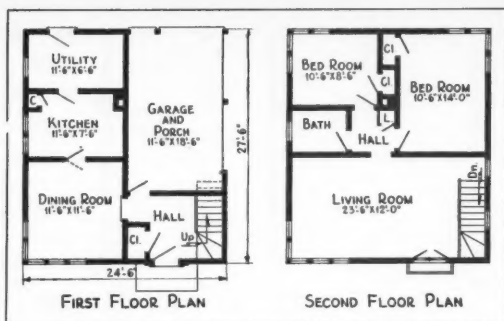




HOUSE No. 5 has an unusual combination porch-garage. In the cold months the space may be used as a garage, but in the warmer days of spring and summer it is easily converted into a porch. This is done by opening the hinged plywood panels on each side, and also the end door.

AMERICAN BUILDER
The Cost FIGURES
FOR THESE HOUSES
ON PAGE

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This modern home which is revolutionary in plan, consists of two stories with one of its most unique features being the living room on the second floor.

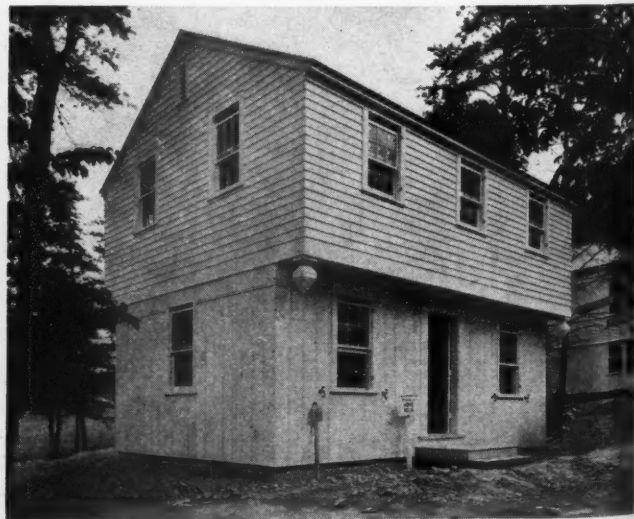
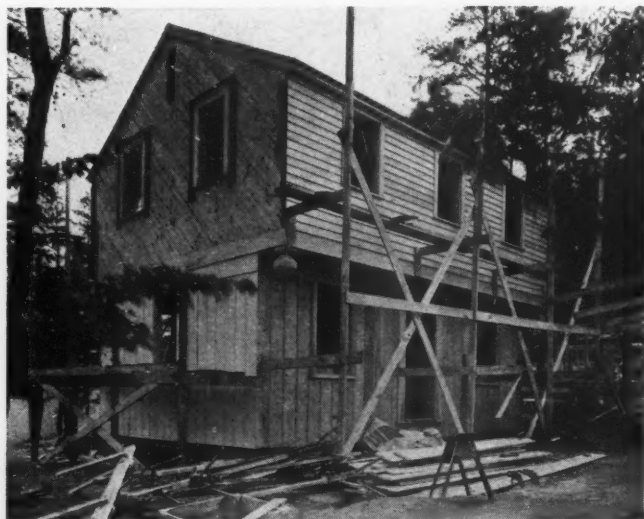
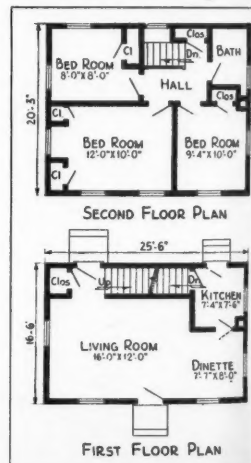
While the house is approximately the same floor size and contains about the same cubic content as the average two-bedroom bungalow with basement, the disposition of rooms has converted for living facilities some of the cubic footage frequently wasted below ground. The porch-garage, which has hinged plywood panels on two

sides, hall, and dining room are thus made possible.

HOUSE No. 6 was designed for economy below ground and efficiency above. This was achieved by using a foundation size for a five-room house and allowing the second floor to overhang the first floor. The space created by the overhang was then used to house a second floor of a three-bedroom home.

This six-room house with three bedrooms and bath upstairs and large living room, dining room and kitchen below, employs a hardwood wainscoting

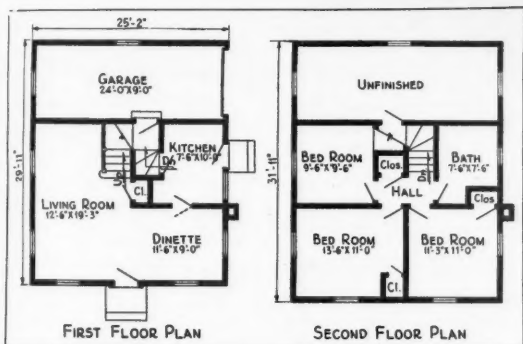
HOUSE No. 6 saves foundation cost by overhanging the second floor. Construction view (left) shows diagonal sheathing as used in all these houses for strength.



HOUSE No. 7 has six rooms and garage with a big play space and future expansion area over the garage, this unfinished room reached from the stair landing.

AMERICAN BUILDER
The Costly FIGURES
FOR THESE HOUSES
ON PAGE

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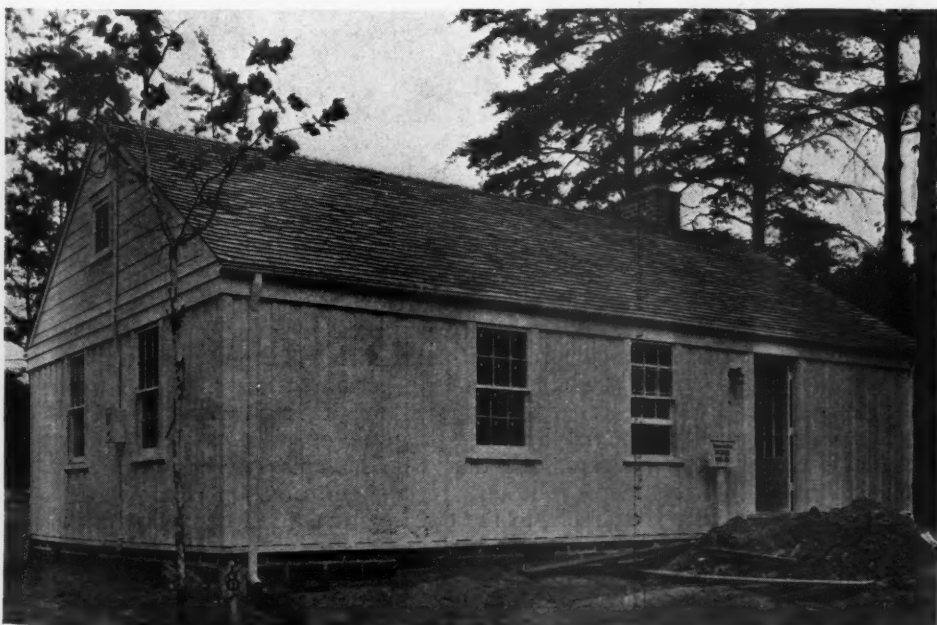


HOUSE No. 7, uses the same principle of small foundation area to which the architect has added a garage and created greater second floor living space by carrying the roof high at the back. This house, in addition, is the largest for the money.

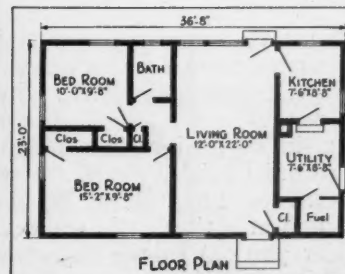
The high roof permits designing of an extra-large rear room over the garage which is reached from a half-landing in the main stairway. It may be converted into an additional bedroom, or serve as a storage or play area.

HOUSE No. 8 is constructed for either country or city living. Built with a living room running directly through the house, front to back, it gives an unusually spacious appearance with its wood wainscoting and ceiling of plywood on wood beams. In addition there are two bedrooms, a kitchen, bath and utility room. If the home is built with basement, present utility room can be used as kitchen and the former kitchen as dinette.

throughout the living and dining rooms. The overhanging second floor reduces the cost of foundation masonry, excavation and similar basement items without reducing the area of essential living quarters.



HOUSE No. 8 has a modern look with vertical boards and battens. This is a "basementless" design, with heating plant and laundry in the "utility room."





HERBERT U. NELSON

A Plan for City Rebuilding

How to reclaim blighted areas

By **HERBERT U. NELSON**

Executive Vice President, National Assn. Real Estate Boards

SYSTEMATIC rebuilding and redemption of the blighted areas of our cities, to be carried out over a period of the next thirty years is under discussion in a number of quarters as a great national project.

What is proposed is that this greatly needed work be undertaken as a deliberate national objective and that we set up specific machinery to do it through teamwork of private capital and initiative with public effort, national, state and local, using existing agencies. Very little new machinery, it is thought, would be required.

The very magnitude of the undertaking is what would make possible its greatest gains and so draw, it is thought, enthusiastic and general public support. Not the least important consideration is the fact that it would develop wide-spread socially useful employment within each city affected through the regular channels of business and labor. The construction industry normally engages 3 million people, indirectly employs another 3½ million. Anything that would stabilize it would go far to steady our whole economic structure.

Should Deal with Large Sections

The essence of the idea now under discussion is that we set up some means whereby we can surround an area large enough so that we can create from it an entirely new self-contained district. Such an area should consist of several square miles. The best available use of most near-in blighted regions today would ordinarily be as residential neighborhoods. Certainly that is the socially most needed use. If we could deal with a large enough section at a time, it is realized, we could set up in the older portions of the city essentially the same kind of good relationship between uses of neighboring properties

that we have learned to give high grade new subdivisions, with the same kind of agreements and controls to assure permanency of the new neighborhood character.

The suggestion is that we charter "city rebuilding companies," under a standard form of charter, to operate as public utility companies, drawing on private initiative so far as possible for their capital but working under a definite city plan and under carefully outlined conditions to achieve public purposes. The equity capital for such an enterprise might very properly come from the Federal government. The bulk of the funds needed could certainly be drawn through the issue of securities if, as is further suggested, FHA be authorized to insure the bonds.

Blight Is Threat to Values

Urban blight is destroying billions of dollars in real estate values and is moreover a threat to the nation's entire value structure. An undertaking of the scope proposed would make possible a planned rebuilding of deficit areas in such a way as to make the most of their possibilities economically and socially. It could turn them once more into genuine home neighborhoods, with a good environment for family life and stability for home values there. It would give a means for attacking the grave problem that exists where over-enthusiastic early hopes of future business or industrial growth has resulted in over-zoning for such uses.

One-third of the privately owned land in our central cities is vacant, unused, planning records show. To the degree that we can bring into real use once more the decaying portions of our cities we can check the rapid ballooning of city areas that has gone on in the last fifteen years and cut down the enormously increasing tax cost entailed in carrying sewers, sidewalks, power lines and other municipal services out over a wider and wider circumference. If we can create better living quarters in more compact and more efficient cities we can eliminate an immense unnecessary waste of human energy and man-hours entailed in shuttling over miles of blighted areas from home to daily work.

The city plan upon which large scale rebuilding operations are to be based would be socially and economically very important. To make the most of the opportunity there should be some way of pooling thought and experience in the preparation of these city plans.

Any quasi-public, quasi-private agency we set up as a city rebuilding company should of course be local in initiative, direction and personnel and should be free to create what would best fit local conditions and needs. For this it should not be limited to production of low-income housing. It should be free to deal with needed neighborhood commercial facilities. Under the safeguards contemplated it could properly be given power of eminent domain. But it should serve only as a bridge back to normal private ownership and use.

To effect the transition it would need the power to lease or sell reconstructed or new improvements in the rebuilt area to private individuals or companies. The leases and deeds might well be accompanied by covenants which would provide for the maintenance of the neighborhood amenities for a long period of years.

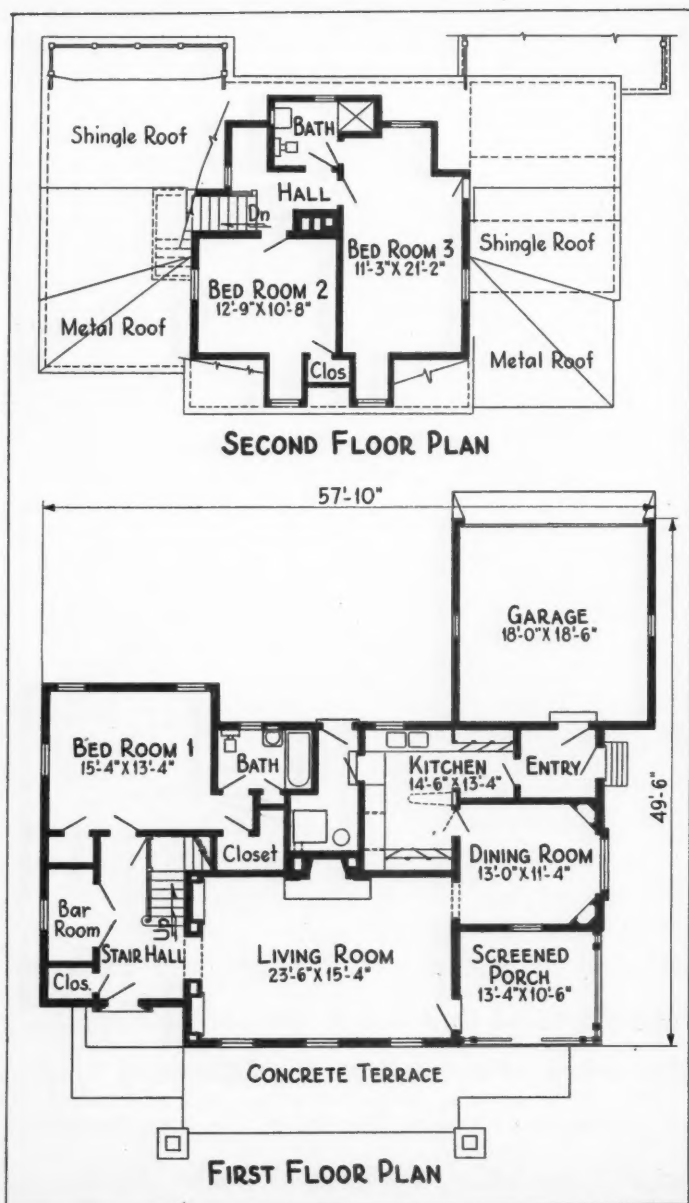
What is proposed might result very soundly in an annual building program of at least three billions of dollars, one that would employ perhaps three million men. The task for the entire nation is comparable, for example, to the building of the railroads, or the building of our great highway system. It is one, many leaders believe, that has in it huge potentialities for stabilizing investment values and for creating better conditions for our urban life.

HOMES BUILT TO ENDURE



ABOVE: Oak mantel and horizontal paneling in Alabama "All Hardwood" House; more details and plans are shown on following two pages.

Quality materials and construction are essential to building houses that are to endure—a necessary requisite today. Featured on the following Design Section pages are examples of such construction, the first of them being a "Home of Three Centuries."



ALL HARDWOOD HOME BUILT FOR 300 YEARS IN MONTGOMERY, ALA.

George Mahan, Jr., Memphis, Architect
Bear Lumber Co., Montgomery, Builder

BECAUSE it is expected that this home will withstand at least three hundred years of service, it has been named "The Home of Three Centuries." It is built entirely of cypress and finished throughout with choice native Alabama hardwood. The sills, joists and framing, as well as the sidewalls, are built of this long lasting wood. J. H. Flack of Cathey-Flack Hardwoods, Inc., opened it to public exhibition, and during two weeks more than 20,000 people visited it. With some fifteen different species of hardwood used for interior finish, the home provides a demonstration of interior beauty and durability. Some of the woods used are oak, walnut, ash, magnolia, maple, beech, sycamore and red gum; the three interior views on the opposite page show how they were applied.

THE floor plans at the left indicate the interior arrangement of six rooms and attached garage. One bedroom with bath is located on the first floor. A utility room replaces the basement. Except for rock wool in the attic, double walls are utilized for insulation; a second layer of sheathing for panel backing is used in the outside walls, and there are also two layers of roof sheathing and sub-flooring. The roof covering is Eternit asbestos shingles with copper valleys and flashings. A Williamson warm air furnace and Stokol coal stoker provide the heating system; Crane plumbing fixtures and Corbin solid brass hardware were used.

THE living room view toward the entrance hall shows the walls of wide solid paneled oak in natural finish. The ceiling is of paneled gum, and the floors of wide smoothly finished red oak. A close-up view of the fireplace is shown on the second page preceding this.



THE main walls of the dining room are paneled with wide solid vertical plank and mouldings between joints of red oak. Cove cornice is black walnut, as are the two corner cabinets. Ceiling is of tupelo gum plywood with recessed stiles forming a pattern.



UPSTAIRS, bedroom No. 2 has walls of V-joint tupelo gum plywood set off with sap trim. The ceiling is of the same wood as the walls, all finish being painted. Doors throughout are of red gum.



TWO RAMBLING COLONIAL HOMES WITH FINE DETAILS

—ONE FOR THE CITY

White and Weber, Chicago, Architects

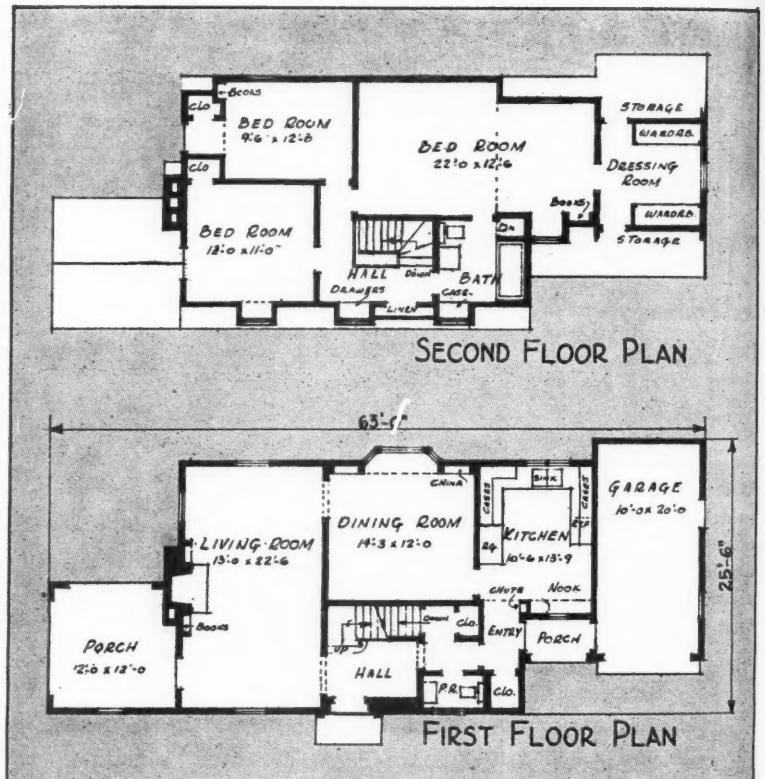
Ralph H. Heth, Designer

THE HOME below is located in a Chicago suburb and, being 63 feet long, is placed lengthwise on a corner lot. Like the White and Weber country house illustrated, it has an unusually good plan and fine detailing. Circulation on both floors is carefully worked out; on the first floor a small rear hall connects the basement stairs, lavatory, closets, rear entrance and kitchen. The rear porch connects with garage and a window from it lights the well placed breakfast nook. Second floor bath has access from both hall and master bedroom. Ample storage space is provided by closets, wardrobes and drawers.

The exterior is well proportioned and pleasingly detailed on all elevations. Cedar shingle walls stained white and properly set dormers contrast nicely with the blue-black roof. The screen wall across the front of the porch adds length and assures privacy.

Other construction features are as follows: Foundations, concrete; partitions, 2x4" studs, Sheetrock; floors, oak, except bath, powder room and kitchen and kitchen entry which have linoleum floors; porch floors, colored concrete, scored. Interior finish, pine paneling on fireplace wall; wallpaper walls and painted ceilings throughout except kitchen which is painted, walls and ceiling; dado rails in living room, dining room and hall. Wiring, rigid conduit; lighting fixtures, of special design; heating, forced warm air, oil heat. Kitchen cases, wood; plumbing, Standard fixtures, galvanized iron piping. Windows, double hung casements, weatherstripped; insulation, 4" Rockwool, ceilings and walls; roof, asphalt shingles, thick butt blue-black, two in one; exterior walls, 24" wood shingles 12" to weather, stained white, on sheathing.

THE HOUSE on the opposite page is located in a rural section near Chicago and was designed for a tenant farmer; later, it will be altered for the owner's use. Although it has the appearance of a large country home due to over-all length, the actual cost was moderate. The additional bedroom will have a separate entrance off the future loggia and can be used by a hired hand or guests. The present office then becomes the living room and the balance of the former living room will be the library or office with hall and bath.



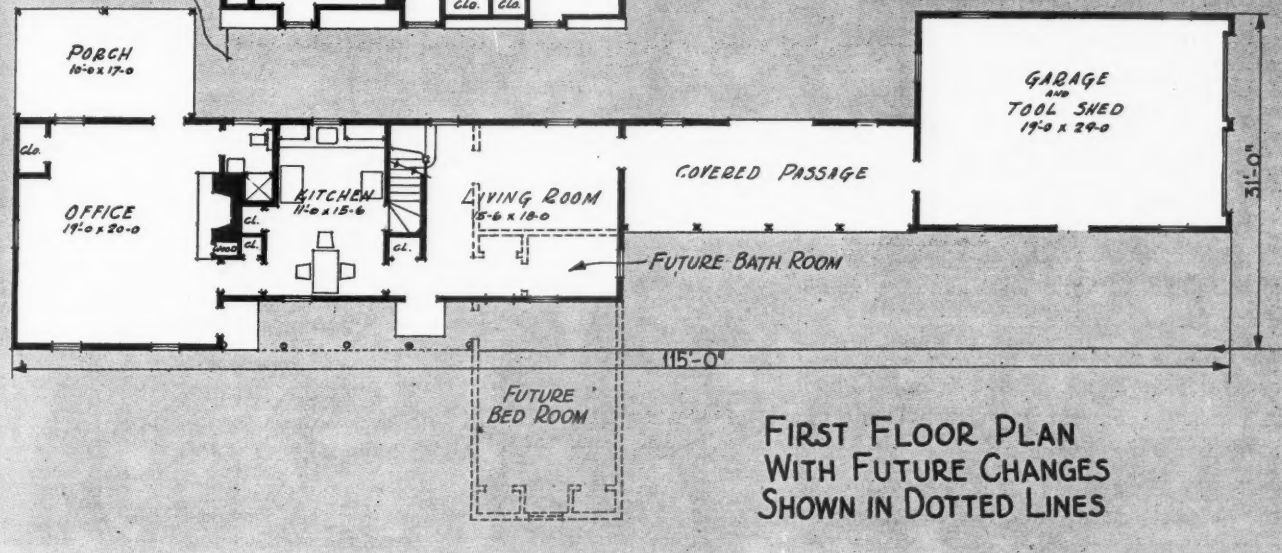
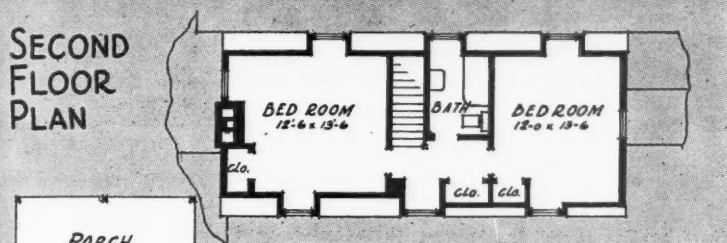
AMERICAN BUILDER
True Cost FIGURES
FOR THESE HOUSES
ON PAGE
48

—ONE FOR THE FARM

THIS tenant farmhouse with connecting passage to implement shed-garage, as shown at the right, will later become the owner's house when future changes indicated in dotted line are made. The following is an outline of construction:

Foundation, concrete; exterior walls, drop siding $4\frac{1}{2}$ " to weather on Bildrite sheathing; partitions, 2x4" studs, Sheetrock; floors, pine, except concrete in office. Interior finish, plywood in office, wallpaper on walls and ceilings throughout; roof, wood shingles $5\frac{1}{2}$ " to weather, not stained; insulation, 1" Balsam-Wool; windows, wood double-hung and storm sash. Lighting and wiring, conduit; plumbing, exposed galvanized iron septic tank, Standard fixtures. Heating, gravity system warm air. Kitchen cases, wood.

SECOND FLOOR PLAN



FIRST FLOOR PLAN
WITH FUTURE CHANGES
SHOWN IN DOTTED LINES



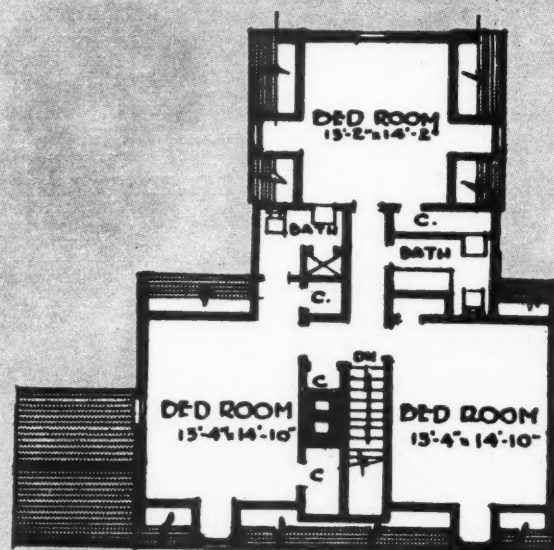


GARAGE, EXTRA BEDROOM AND BATH IN ELL

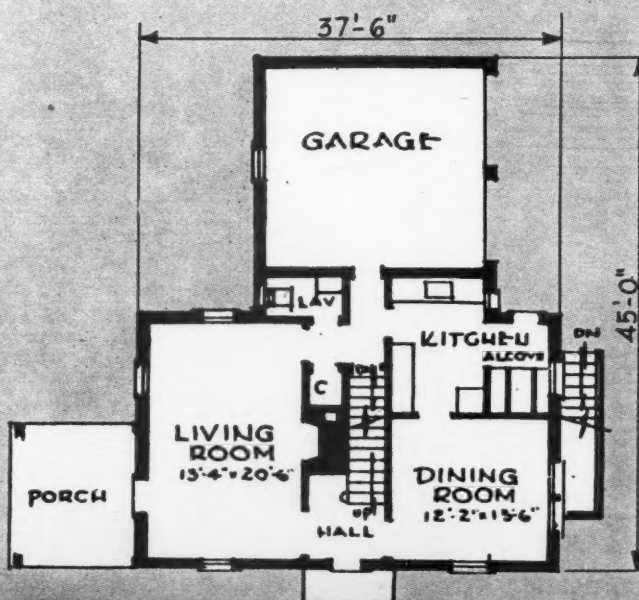
BY PLACING a two-car garage at the rear of this Colonial design, the architect made space for an extra bedroom and bath upstairs and a lavatory downstairs that add a great deal to its value. The house was built in Reading, Pa., last year by builder Fred P. Behm. The architects were Ritcher & Eiler, also of Reading. The house was opened to the public as a Johns-Manville Triple Insulated Home and attracted wide attention. Exterior is of cedar-grain cement asbestos shingles.

THE PLANS are compact and provide a large amount of usable living quarters in a small cubage. The trend towards smaller houses but increased bathroom facilities is well illustrated. There is a lavatory on the first floor which is accessible from both living room and kitchen. One of the upstairs bathrooms is connected with the master bedroom, and the other is easily accessible from the other two bedrooms. The house is "built to last" using firesafe materials, is heavily insulated and well constructed.

BASEMENT has an outside as well as an inside entrance. The large storeroom is suitable for a recreation room. The area under the garage is unexcavated.

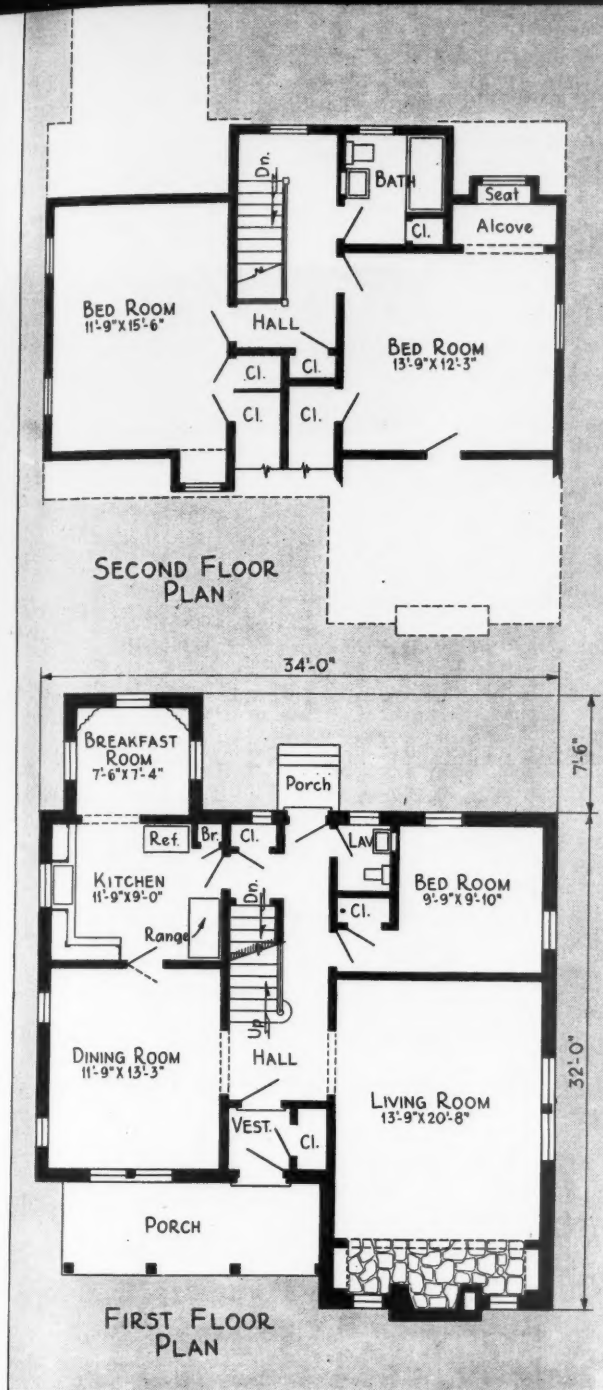


SECOND FLOOR PLAN



BREAKFAST ROOM AND FIRST FLOOR BEDROOM POPULAR IN DETROIT

**Built by Knight-Menard Building Co.
Ted Wilkins, Detroit, Architect**

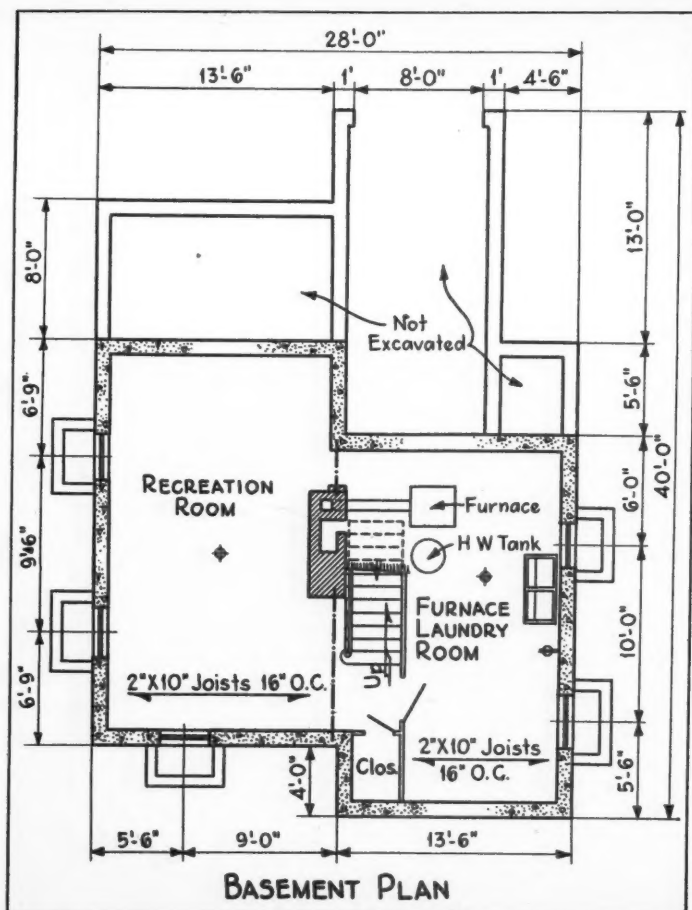


THE TYPE of house shown below with floor plans at the left has proved to be extremely popular in Detroit. It is of the center hall type, but has the living room wing extending to the front, the end of which features a fire-place nook with wide hearth and built-in shelves. There is no through traffic in this room. Dining room, kitchen and well lighted breakfast room with corner cabinets are grouped opposite. A first floor bedroom with lavatory is conveniently placed for maid or guest. On the second floor there are two good sized bedrooms with bath, and adequate storage space. One of the bedrooms has a handy alcove and window seat.

Exterior is unpainted common brick on the first floor with white clapboard above and a red cedar shingle roof. Other construction features are as follows: Footings, poured concrete with felt insulator and tile drains; foundations, concrete block double waterproofed; rough lumber, full dimension thoroughly dried and graded; insulation, 4" rock wool all exposed walls and ceilings; windows, P. & H. Weathertight, weightless, prefit frames and sash; plaster base, rock lath reinforced with fabricated steel over lintels, coves, inverted corners, all exposed corners protected with corner beads; trim, all interior woodwork kiln dried, stock trim, oak floors; tile work and linoleum, kitchen and bath floor, inlaid linoleum, bath walls and sink back asbestos wall tile.



A. AMERICAN BUILDER
Real Cost FIGURES
FOR THESE HOUSES
ON PAGE
48



COLONIAL WITH ATTACHED GARAGE

Cheel Construction Company, Builder
J. Norman Hunter, Architect

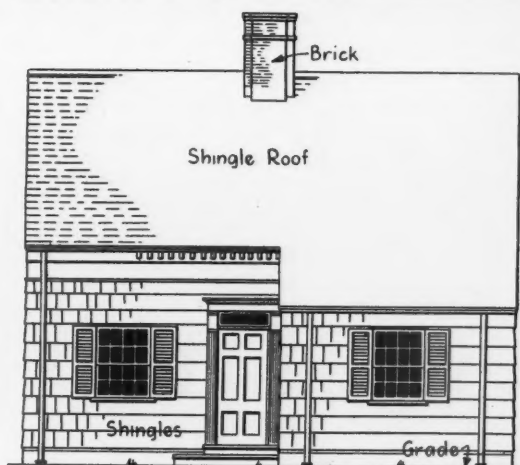
A LARGE AMOUNT OF CHARM, comfort and livability are built into this little Colonial house in Cheelcroft, the attractive subdivision of Harold W. Cheel at Ho-Ho-Kus, N. J. The approximate basement dimensions are 28' x 23'. In this small space Architect J. Norman Hunter has contrived to include a 13'2" x 22'2" living room and a master bedroom that is 12'2" x 18'2" in addition to the smaller bedroom, bath, dinette and kitchen. The garage is attached at rear in a clever fashion, with direct entrance off the kitchen.



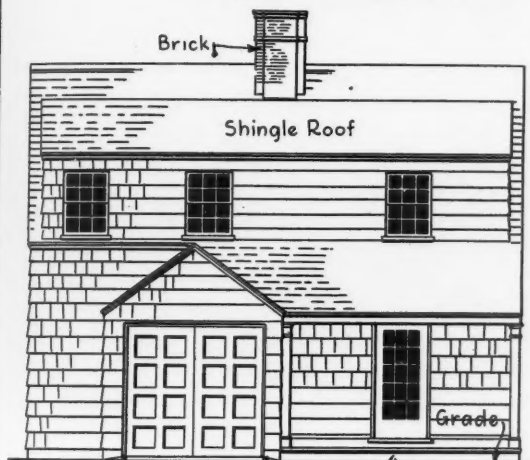
THE HOUSE looks bigger than it actually is due to the carrying of the roof line down over an open porch at rear, which is reached by a French door from the living room. This makes an attractive spot for the family to sit on summer evenings. A clothes closet is located just beside the front door, and there are ample closets in the bedrooms. A separate tile shower compartment is provided. Space for a good-sized future recreation room is provided in the basement.



RIGHT SIDE ELEVATION



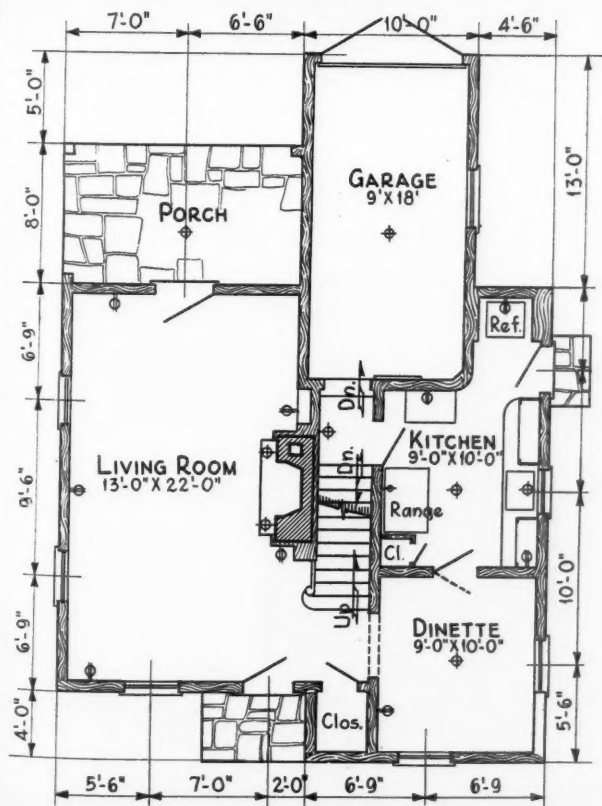
FRONT ELEVATION



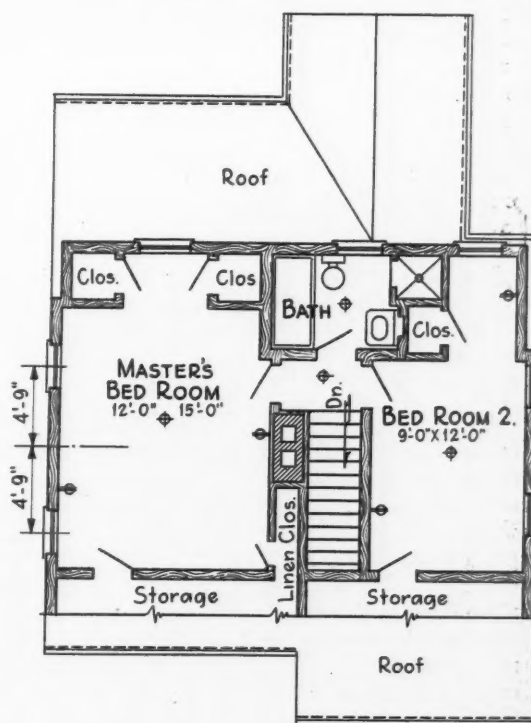
REAR ELEVATION



LEFT SIDE ELEVATION



FIRST FLOOR PLAN



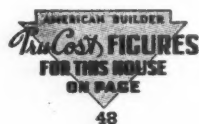
SECOND FLOOR PLAN



ECONOMICAL HOUSING FOR TWO FAMILIES

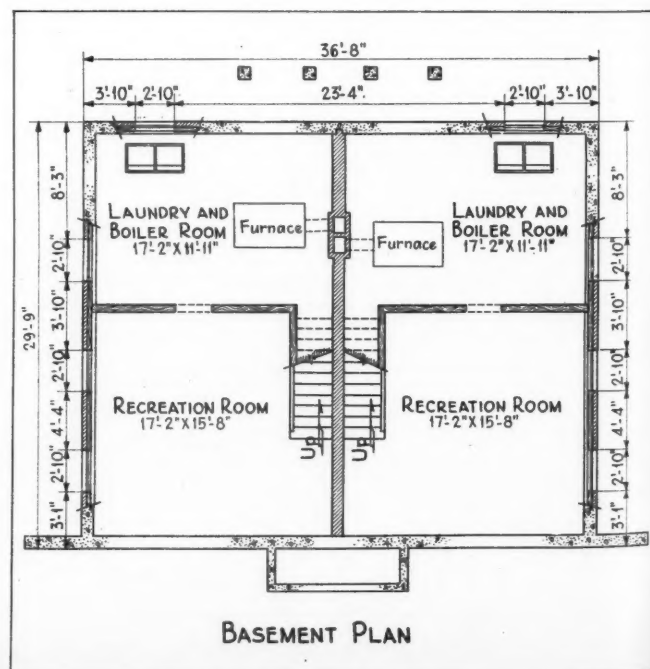
**Built in River Forest Manor by
Fort Dearborn Mortgage Co., Chicago**

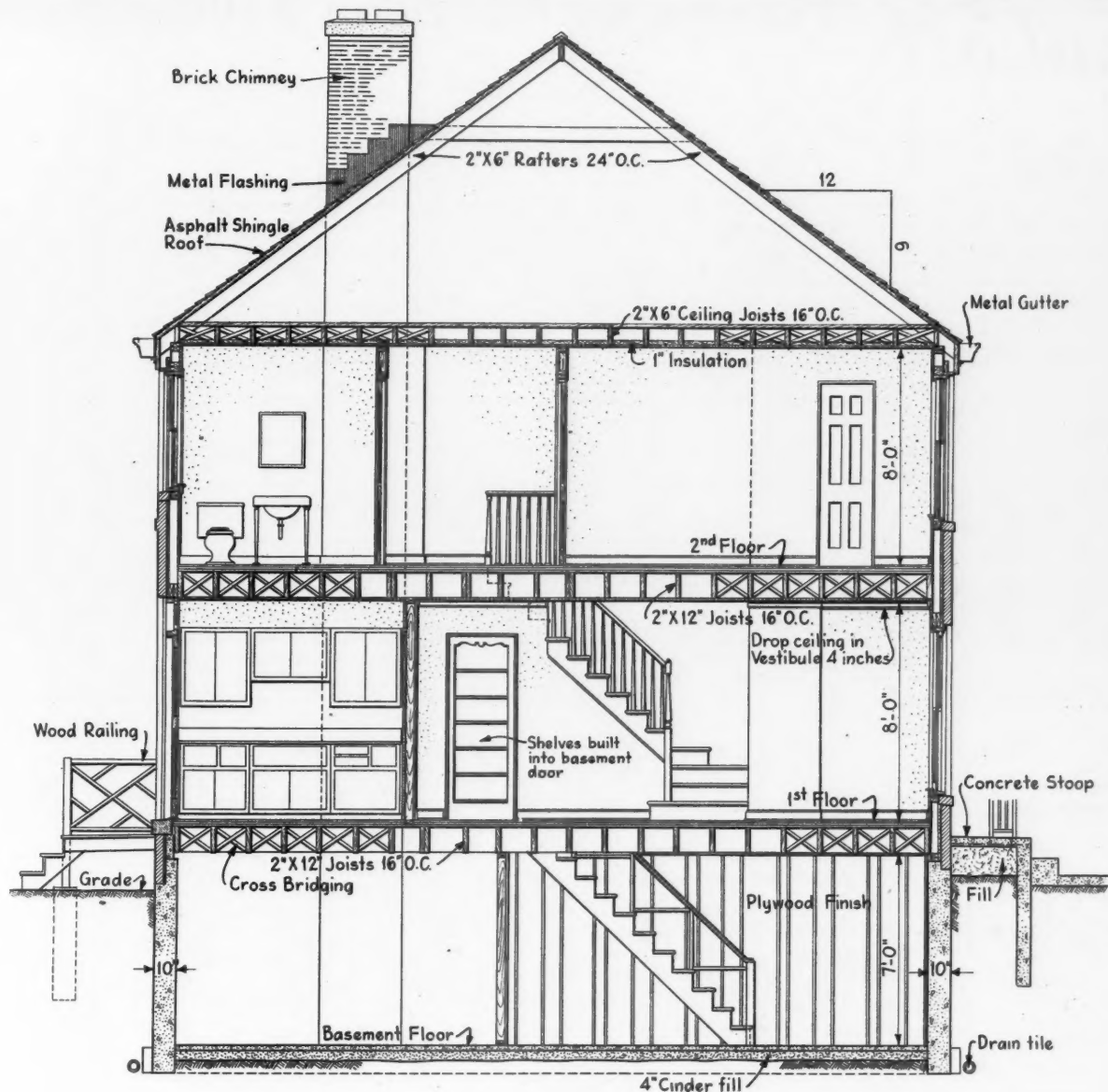
ALTHOUGH the housing trend has recently been toward single-family units, it is still frequently desirable to take advantage of the economies in two-family houses, especially where higher building and land costs are found. In building such units as shown above, the Fort Dearborn Mortgage Company, of Chicago, has been able to offer a very livable five-room accommodation at a price which shows how substantial such economies can be. The exterior has been kept to a simple rectangle with an unbroken gabled roof. The plainness can be further relieved with blinds also flanking the upper windows.



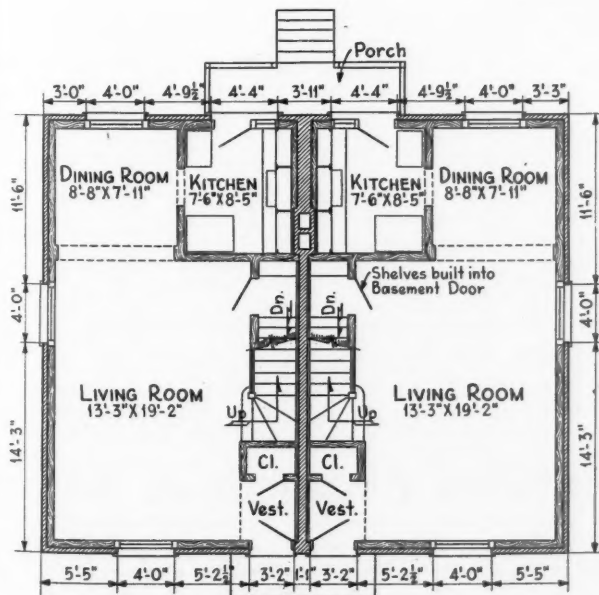
As seen in the floor plan, these houses are very compact. The basement features a recreation room with plank pattern plywood finish and a combination laundry and boiler room. The living room is entered from a vestibule with guest closet and has second floor stairs leading up along the same wall. Since the stairway to the basement is directly below this, decorative shelves have been built into the basement door, as shown in the cross section drawing on the opposite page. The dining room alcove is placed at the rear end of the living room and has a very efficient little kitchen adjoining it. The second floor, likewise, has no waste space; four closets which provide for ample storage have been carefully planned. The wall space areas allow alternate arrangements for beds with windows placed for cross ventilation.

BESIDES the original cost savings on these houses, construction has been such as to keep operating expenses at a minimum. They are well insulated with Celotex board and insulating lath, and have autumn tint brick veneer and a three-in-one thick butt asphalt shingle roof. Other construction items include: Crane plumbing fixtures; American Radiator Sunbeam winter air conditioning system; Beardslee light fixtures; Hoosier kitchen cabinet work; Libbey-Owens-Ford glass.

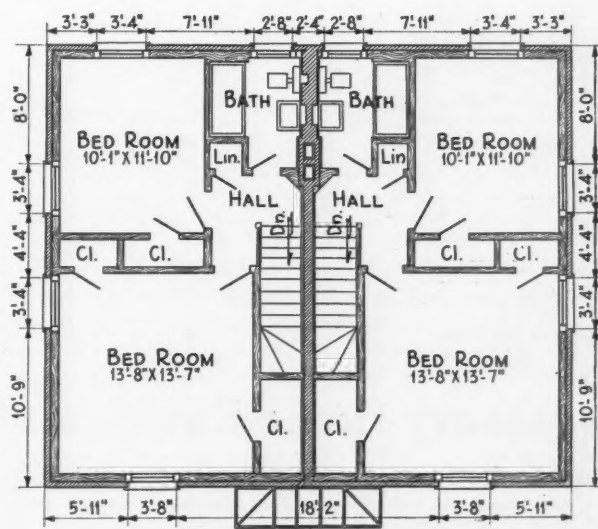




CROSS SECTION



FIRST FLOOR PLAN



SECOND FLOOR PLAN

ProCost

Figures for American Builder Homes

HOME DESIGNS ON PAGES AS NUMBERED

Unit of Construction	Aug., 31	Aug., 32, Left	Aug., 32, Right	Aug., 33, Upper	Aug., 33, Lower	Aug., 34, Upper	Aug., 34, Lower
Basement Walls, lin. ft.	110	98	108	105	123	104	84
Trench Walls, lin. ft.	52	0	0	0	0	30	0
Basement Floor, sq. ft.	736	600	710	680	888	462	420
Garage Floor, sq. ft.	280	0	0	0	0	212	0
Excavation per ft. deep, cu. yds.	35	26	29	28	37	23	19
Holtrate on following items	1.552	.702	.902	.795	.970	1.332	1.068
Outside Walls, squares	23.4	19.8	12.1	11.7	13.3	19.6	16.8
First Floor, squares	7.4	6.0	7.1	6.8	8.9	4.6	4.2
Second Floor, with Fin. Flg., sqs.	7.4	0	0	0	0	6.7	5.2
Second Floor, without Fin. Flg., sqs.	0	0	0	0	0	0	0
Ceiling, sqs.	9.4	6.0	7.1	6.8	8.9	6.7	5.2
Roof Pitch, inch rise per ft. run	9"	8"	8"	8"	7"	6"	8"
Roof, squares	12.9	7.3	9.2	8.8	11.0	8.7	6.8
Hips and Valleys, lin. ft.	0	0	0	0	0	84	0
Cornice, type and size of	C & F-86	C & F-108	C & F-122	C & F-118	C & F-135	12"-112	C & F-102
Cornice, lin. ft.	8"-84	0	0	0	0	0	0
Partition, lin. ft.	188	78	104	91	127	109	119
Inside Finish OS Walls, lin. ft.	240	98	108	105	123	208	174
Front and OS French Doors, opps.	2	1	1	1	1	1	2
Rear and Grade Doors, opps.	1	1	1	1	1	2	1
Garage Doors 8' wide	1	0	0	0	0	0	0
Inside Doors and Cased Opps., opps.	16	7	11	9	11	12	12
Windows and Casements, opps.	16	8	16	9	12	26	14
Gable Sash and Louvers, opps.	2	2	2	2	2	0	2
Chimney, lin. ft.	36	26	27	27	27	34	35
Main Stairs	1	0	0	0	0	1	1
Porch Floor, sqs.	.2	0	0	0	0	0	0
Porch Ceiling, sqs.	.2	0	0	0	0	0	0
Porch Beam, lin. ft.	12	0	0	0	0	30	0
Porch and Bal. Post and Newels, No.	2	0	0	0	0	3	0
Porch Roof, sqs.	.2	0	0	0	0	0	0
Porch Cornice, lin. ft.	14	0	0	0	0	0	0
Porch and Deck Rail, lin. ft.	0	0	0	0	0	0	0

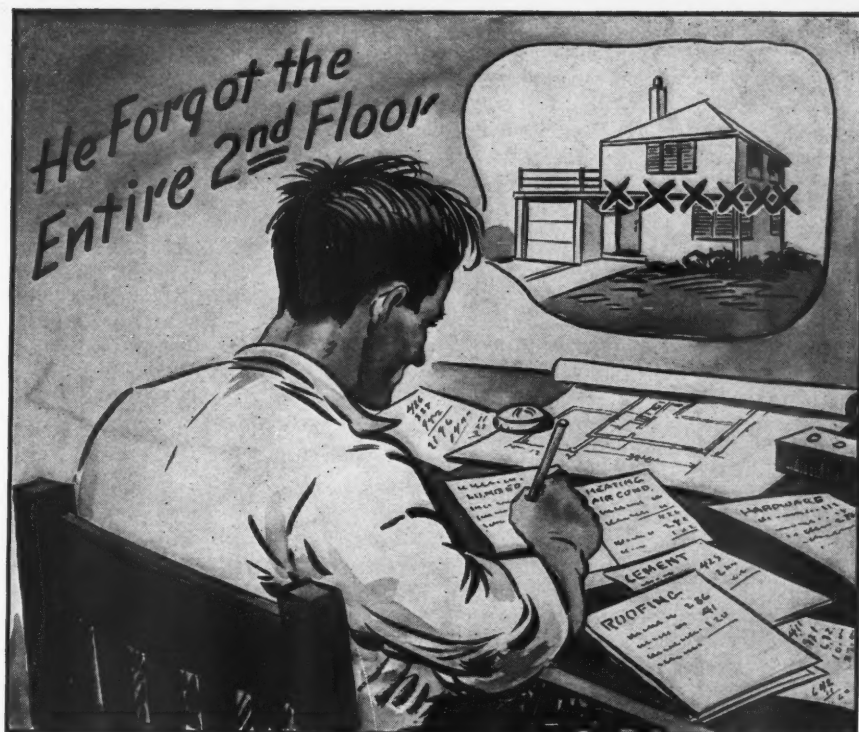
Unit of Construction	Aug., 35, Upper	Aug., 35, Lower	Aug., 40	Aug., 41	Aug., 42	Aug., 43	Aug., 44	Aug., 46
Basement Walls, lin. ft.	91	119	134	158	120	147	110	133
Trench Walls, lin. ft.	44	0	82	193	86	23	68	36
Basement Floor, sq. ft.	510	844	874	1047	807	988	648	1090
Garage Floor, sq. ft.	238	0	241	600	386	0	190	0
Excavation per ft. deep, cu. yds.	29	35	43	59	39	46	32	48
Holtrate on following items	1.217	.941	1.990	2.223	1.880	1.886	1.383	1.934
Outside Walls, squares	19.3	13.0	24.9	37.4	25.1	20.2	19.8	29.3
First Floor, squares	5.1	8.4	8.7	10.5	8.1	9.9	6.5	10.9
Second Floor, with Fin. Flg., sqs.	6.5	0	9.4	5.3	8.7	6.1	5.3	10.9
Second Floor, without Fin. Flg., sqs.	0	0	1.8	1.0	3.1	3.3	1.7	0
Ceiling, sqs.	9.5	8.4	11.2	13.3	13.3	9.9	8.3	10.9
Roof Pitch, inch rise per ft. run	8"	8"	7"-24"	9"	11"	14"	10"	9"
Roof, squares	10.2	10.5	20.3	28.6	16.8	17.8	13.7	14.5
Hips and Valleys, lin. ft.	0	0	18	48	64	64	12	0
Cornice, type and size of	C & F-130	C & F-130	C & F-208	C & F-382	C & F-275	C & F-181	C & F-208	C & F-152
Cornice, lin. ft.	0	0	8"-128	0	0	12"-50	0	0
Partition, lin. ft.	131	117	216	150	217	195	136	275
Inside Finish OS Walls, lin. ft.	179	119	250	238	240	213	200	266
Front and OS French Doors, opps.	1	2	2	4	2	1	2	2
Rear and Grade Doors, opps.	1	1	3	2	1	1	1	2
Garage Doors 8' wide	1	0	1	2	2	0	1	0
Inside Doors and Cased Opps., opps.	12	11	20	15	19	21	15	20
Windows and Casements, opps.	14	10	23	26	19	22	14	18
Gable Sash and Louvers, opps.	2	2	0	2	0	0	0	0
Chimney, lin. ft.	34	28	34	32	32	34	32	38
Main Stairs	1	0	1	1	1	1	1	2
Porch Floor, sqs.	0	0	1.7	4.5	1.0	1.1	1.4	.8
Porch Ceiling, sqs.	0	0	1.7	4.5	1.0	1.1	1.1	.8
Porch Beam, lin. ft.	0	0	26	65	28	23	22	36
Porch and Bal. Post and Newels, No.	0	0	0	7	2	3	2	4
Porch Roof, sqs.	0	0	0	0	1.6	0	0	1.4
Porch Cornice, lin. ft.	0	0	0	0	36	0	0	38
Porch and Deck Rail, lin. ft.	0	0	0	0	0	0	0	0

Necessary Home Equipment, Fixtures, Accessories, Extras

Since the above surveyed items cover only the actual superstructure of the house, you should figure and add the following items as specified or wanted (and don't forget Overhead and Profit):

Areaways, Cellar Sash, Coal Chute, Basement Partitions & Doors, Attic Flooring, Attic Stairs, Blinds, Gutters & Downspouts, Fireplaces,

Built-in Cabinets, Rail & Newels for Stairs and Stair Well, Beamed Ceiling, Weatherstrips, Tile Work, Plumbing, Heating & Air Conditioning, Lighting, Terraces, Patio Walls or Fences, Sidewalks including Porch Steps, Driveways, Unattached Garages. Also add for painting and decorating if not included in Unit Costs.



TruCost

Detects Errors in Material Lists

A. W. Holt shows how costly mistakes in estimating and bidding can be avoided

WHY is it that everyone seems so ready to blame the other fellow when things go wrong? And this they usually do without complete analysis of the trouble to locate the real cause that produced the effect. All too many jump at conclusions and take the I'm-right-and-you're-wrong attitude, thereby hindering their own progress.

This human weakness or downright failure was brought to my attention very forcibly a short time ago while visiting among lumber dealers. After a very cordial greeting from a certain dealer, he jolted me by adding:

"... but your *TruCost* idea isn't what it's cracked up to be, Holt, and I'll prove it to you," whereupon he led me back into his private office and showed me a mass of figures. This is what had happened:

One of his contractors with whom he had dealt for years and who built homes to sell, as well as contracting for special homes, had just gotten a price on a list of material which he had made himself for an *American Builder* home design. After quoting on that contractor's list, Mr. Dealer referred to the *TruCost* tables and *TruCosted* it. He was about 11 per cent higher than Mr. Contractor. Without checking to see where the discrepancy was, Mr. Dealer simply dismissed it from his mind and condemned *TruCost* and, of course, me. Fortunately for him and his contractor, I happened along or they both would have been out money on that deal. What's worse, they would have lost a lot of time in

the future by continuing to make lists of materials for buildings that may never be built. Or, if built, perhaps they would have lost money because of similar expensive errors.

As is almost invariably the case, *TruCost* was right and Mr. Contractor's list of material was off. It didn't take me fifteen minutes to prove it, either. So that anyone can check back and get the right evidence before verdict is passed on *TruCost*, I will explain how I located the two main errors.

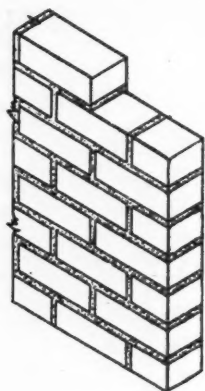
How to Check Up with *TruCost*

After checking the construction of the walls and Mr. Dealer's local unit cost to see that the materials were priced the same as he had figured the list, I asked him to total the board feet of framing material on Mr. Contractor's list. While he was doing so I checked the board footage according to *TruCost* in this way:

Referring to Mr. Dealer's computation of his local unit costs which he had compiled from tables given in the May issue, I multiplied the squares of each unit of construction by the board feet which had been figured per square. For instance, since he had figured 107 board feet of framing per square of wall, all I had to do was to multiply the 21 squares required by that house for a total of 2,247 board feet of framing material for the walls. Doing likewise for the floors, etc, I soon had a tabulation something like this:

Walls	21	sqs. at	107	bd. ft. per sq.	2,247	bd. ft.
First Floor	6.9	" "	195	" " " "	1,345	" "
Second Floor	6.9	" "	195	" " " "	1,345	" "
Ceiling	6.9	" "	82	" " " "	566	" "
Roof	14.2	" "	55	" " " "	781	" "
Hip & Val.	52	lin. ft.,	2x6 rafter		52	" "
Partition	130	" "	8	bd. ft.	1,040	" "

Total framing material per *TruCost*.....7,376 bd. ft.



BRICK PER SQUARE FOR 4" WALLS

Face or common brick.
Stretcher bond. $\frac{1}{2}$ " mortar
joints.

MATERIAL

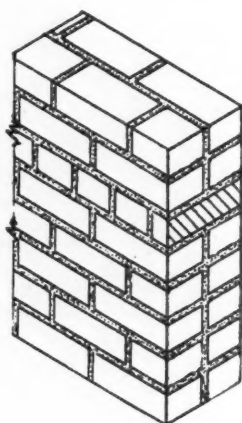
616 Common brick
50 Wall ties

LABOR

616 Common brick

MORTAR

8 Cubic feet



COMMON BRICK PER SQUARE FOR 8" WALLS

Stretcher bond with full
header every 6th course. $\frac{1}{2}$ "
mortar joints.

MATERIAL

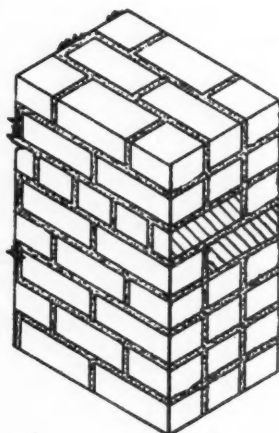
1232 Common brick

LABOR

1232 Common brick

MORTAR

20 Cubic feet



COMMON BRICK PER SQUARE FOR 12" WALLS

Stretcher bond with full
header every 6th course. $\frac{1}{2}$ "
mortar joints.

MATERIAL

1848 Common brick

LABOR

1848 Common brick

MORTAR

32 Cubic feet

This *TruCost* total was about 1,500 bd. ft. greater than the total included on the list. In a few moments I had located the error. It was in the floor joists. Mr. Contractor had only about half enough on his list. And a similar check on the sub-floor and finish flooring disclosed the fact, later proved by 'phoning Mr. Contractor, that he forgot the entire second floor.

Just think of that. But also think how easy it is to "slop over" unless some systematic method is followed when listing the materials. That contractor had been making a practice of figuring the first floor and, in the case of a two-story house, doubling the quantities. He had forgotten to double and, with a mass—or "mess"—of figures to befuddle his brain, it is not surprising that the error was not detected.

The sad part of such mistakes is that, unless the house is built of materials delivered according to the original estimate without transferring part from some other job or using some old materials, nobody but Mr. Contractor himself would ever be the wiser. Why? Simply because it is also a trait of human nature to conceal one's own mistakes.

Operative builders and others who employ what they presume are expert estimators frequently have the wool pulled over their eyes because they leave it to the estimator himself to keep records of actual costs as compared to estimated costs. No wonder many lax builders who lack system and proper accounting go broke. No wonder there is such a spread between high and low bids. And, what's more, no wonder some of those connected with the building industry condemn me and others who "stick our neck out" by committing ourselves in print when they should check up on themselves or look in the mirror for the answer to many of their failures. Again I say: if *TruCost* unit costs are based on one's own proved records and consistent with one's own method of listing materials, *TruCost* will vindicate its accuracy and prove much safer than lists of materials.

How to Prove *TruCost* Tables

As stated in my original *TruCost* article in the May issue, the quantities given in my tables may need adjustment to conform to one's own actual costs. It is a simple matter to verify my quantities by checking the board footage with the actual material required for any completed house. For instance, if the house analyzed had actually been built and it actually required from 7,300 to 7,500 board feet of framing materials, the *TruCost* tables could not fail to be most reliable. If the actual requirements had been, say, 7,000 feet, *TruCost* would likely be about 5 per cent strong on future jobs unless the quantities per square were reduced slightly. But be sure there was no error in records of materials actually delivered and that it was all used for the house and the overages credited.

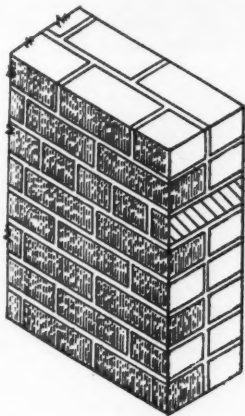
The only possible chance of a discrepancy when *TruCosting* a house is in the framing materials because all covering materials such as sheathings, sidings, shingles, lath and plaster, etc., are listed according to surface measure. If the same allowance is made for matching and waste when compiling one's local unit costs as when listing materials, *TruCost* cannot fail to check out. In case it does not, look for errors and omissions in the detailed list of materials.

Brick Required Per Square of Wall

Many uninformed builders and estimators still think it requires 7 or $7\frac{1}{2}$ brick per square foot of wall per brick thick when laid with $\frac{1}{2}$ -inch mortar joints. That it requires only 6.16 brick per square foot of superficial area can easily be proved in this way:

A standard brick covers 8 by $2\frac{1}{4}$ inches of wall surface. Adding $\frac{1}{2}$ -inch mortar joints gives it $8\frac{1}{2}$ by $2\frac{3}{4}$ inches of covering capacity. Multiplying 8.5 by 2.75 gives 23.375 square inches that each brick covers. Dividing the 144 square inches in a square foot by 23.375 gives 6.1604+ brick per square foot of wall if $\frac{1}{2}$ -inch mortar joints. This is equal to 616.04 brick per square (100 sq. ft.) and is called 616 or 617 brick.

Note that this is practically $6\frac{1}{6}$ "hundreds" of brick, which sometimes simplifies computing costs per square. For instance, brick at \$24 per thousand are 2.40 per hundred and it is easier to add $\frac{1}{6}$ of \$2.40 or 40c to the \$14.40 for 600 brick. Even if the price is not a multiple of 6, the $\frac{1}{6}$ th cannot be more than a few cents off. At \$20.75 per thousand brick I would multiply \$2.08 by 6 for \$12.48 and add 32c (instead of the 35c it would be for \$2.10) for the one-sixth for an even \$12.80 per square. This is quicker and easier than multiplying \$20.75 by .616 unless a computing machine is used.



BRICK PER SQUARE FOR 8" WALLS

Face brick backed with common brick. Full header every 6th course. $\frac{1}{2}$ " mortar joints.

MATERIAL

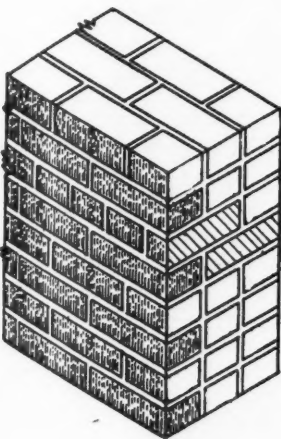
720 Face brick
512 Common brick

LABOR

720 Face brick
512 Common brick

MORTAR

20 Cubic feet



BRICK PER SQUARE FOR 12" WALLS

Face brick backed with 8" of common brick. Full header every 6th course. $\frac{1}{2}$ " mortar joints.

MATERIAL

720 Face brick
1128 Common brick

LABOR

720 Face brick
1128 Common brick

MORTAR

32 Cubic feet

Knowing it requires 616 brick per square of wall per brick thick, it is a simple matter to compile tables for any wall of common brick. When face brick are required for walls 8 inches or more in thickness and for various bonds, the quantity of each kind of brick can be easiest determined by ratio as follows:

If every sixth course is to be a full header course, there will be 5 face brick and 5 common brick for the stretchers and 2 face brick for the header course. This makes a total of 12 brick, 7 of which must be face brick and 5 common brick. Therefore, if an 8-inch wall, $\frac{7}{12}$ of 1232 gives about 103 brick "per twelfth" or 720 face brick and 512 common brick. Since chipped or broken face brick can usually be used for headers it is not necessary to make any allowance therefore as should be done for brick veneer of frame walls.

In the May issue 650 brick were listed per square for brick-veneer frame walls. This is an allowance of about 5 per cent for chipped and broken brick that cannot be used. This may be slightly liberal and, if desired, can be reduced. Making no deduction for openings for brick veneer automatically provides for the lintel and, if labor is included, for the extra labor involved by the opening. In other words, most bricklayers would just as soon fill the opening with brick as to keep the sides of the opening plumb.

In the case of solid masonry walls, however, openings are either deducted or an allowance made in the price per square. Net surface is recommended with cost of lintel and sills added to the per-opening price of doors and windows. This, like labor costs, must necessarily be left to each user of *TruCost*.

Most bricklayers have an established price for laying 1000 brick in various bonds so it is only necessary to multiply their price by the number of brick required per square. The men who do the work are the best source of information about one's local labor costs. Otherwise,

consult any of the data books that are available at such a small price for the valuable information they contain. The main purpose of these articles is to explain how to convert prices from the buying units of per thousand to *TruCost* units for quick and safe estimating.

The accompanying tables should enable anyone to compute their local price per square of brick walls so as to apply to *TruCost* units. Even though a design may show brick veneer or siding, it can be figured in solid brick or face brick with clay or cement back-up tile. In this case, the openings can easily be deducted from the wall area given for a specific plan by multiplying the number of windows and doors given by the area of each. Most estimators allow 12 square feet per window and 18 square feet per door when figuring houses.

Of course, nobody should agree just to be agreeable. But it may be well to remember a truism that I have tried to practice ever since I heard it about twenty years ago. It is as follows:

There is a principle that is a bar to all information, proof against all argument and cannot help but leave one in everlasting ignorance, and that principle is *Condemnation Before Investigation*.

So don't say that *TruCost* is not dependable until proved by facts. And then be sure the facts really are facts and not supposition.

* * *

Los Angeles to Get \$6,000,000 Apartment; Largest Single Private Project in U.S.

ACTIVITY in building and the building trades in Southern California has been given great stimulus through the announcement of plans for the erection on the east side of Los Angeles of the largest rental housing project ever undertaken in the United States at one time by private ownership.

The giant housing project, to be known as Wyvernwood, calls for the expenditure of \$6,000,000 in the transformation of a 72½ acre undeveloped tract, located in one of the most densely populated sections of the West, into an ultra modern residential community.

To be developed as a single planned-unit, the project will include one hundred and forty-two two-story residential structures containing 1,102 living units. These will be divided into three, four and one-half, and six room apartments and flats with a total of 4,443 rooms. A retail shopping district is being planned in conjunction with the residential development to minimize the shopping problems of Wyvernwood occupants.

Announcement of the awarding of the general contract for the construction is expected to be made this month, with ground breaking scheduled for the first part of September. The architects are David J. Witmer and Loyall F. Watson of Los Angeles.

The announcement of the erection of Wyvernwood was taken as one of great importance by the building supply trade. Thousands and thousands of dollars worth of lumber, cement and other building materials will go into the construction of its buildings. Two stories in height, the buildings will be of heavy frame and stucco exterior. Walls will be completely insulated for sound and air conditioning and all units will have one-inch hardwood floors with a one-inch subfloor—unusually heavy construction.

It is a strictly private project in development and is being erected by the D. Herbert Hostetter Estate of Los Angeles, according to John Griffith, the estate manager. The construction will be under the supervision of the rental housing division of the Federal Housing Administration, in accordance with Section 207 of the National housing act.

Mr. Griffith pointed out that Wyvernwood is to have no relation to any of the so-called slum clearance projects under City or County authority.

"This community development project will be no different than the building of any home or group of homes built for rental purposes, other than the fact that it is an entire community, developed at one time, rather than on a hit or miss basis with scattered buildings having little or no relation to one another in

(Continued to page 86)

Metal Mouldings Prove a Valuable Aid with Mo

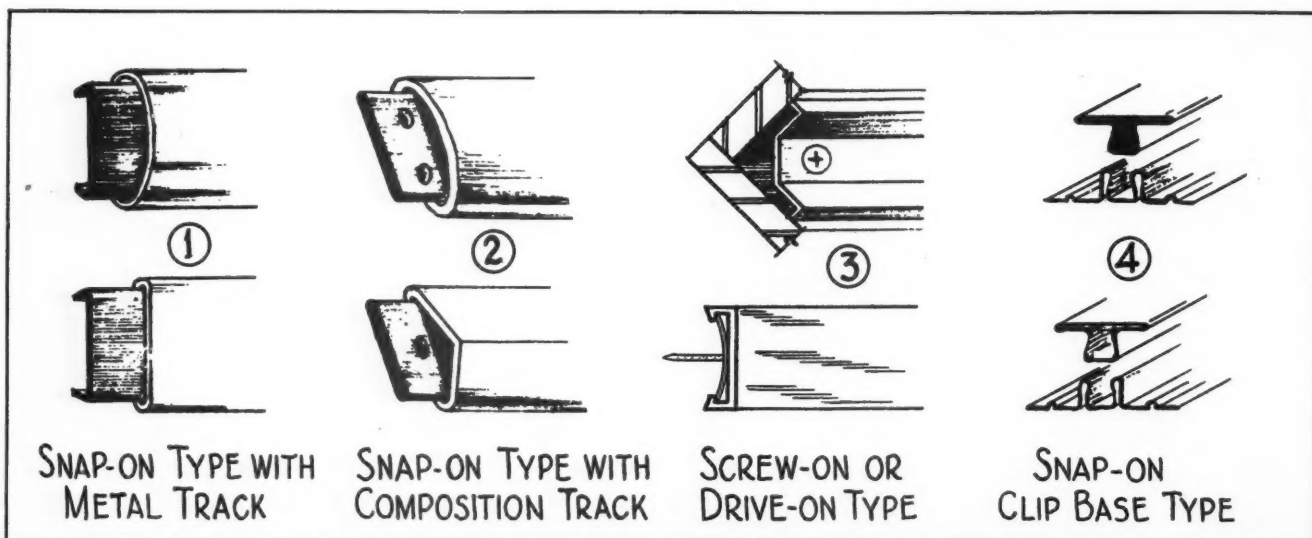
THE increased range of use and popularity attained by metal mouldings for construction purposes has been widespread during the past few years. While providing a means of adding decorative effects to certain types of wall finish and dry-wall construction, these products have overcome certain problems which developed in connection with the application of some of the newer wall materials, such as fibre and composition boards, glass and enamel sheets, plywood and cork coverings. As a decorative trim, metal mouldings also have met the needs of modern styling.

Practical uses for metal mouldings will be found today in many types of construction—residential and commercial structures, either new or remodeling jobs. To name just a few of these, there are bathrooms, kitchens, recreation rooms, lobbies, elevator cars, offices, restaurants, bars, store fronts, and commercial building exteriors. At the bottom of these pages three such uses are illustrated. One shows a strikingly modern small restaurant with exterior of white porcelain panels with stainless steel mouldings. These shining strips add much in carrying out the architectural treatment of the building and, at the same time, provide a covering for

the horizontal joints. The bar offers a highly decorative treatment obtained by combining materials in contrasting colors set off with filler insert mouldings. The bathroom in a model house presents a colorful and distinctive appearance through the use of ivory colored J-M Flex-board panels and polished metal over the joints between sheets.

Metal mouldings may be classified in several different ways, although there are so many types that any grouping will probably be incomplete. According to method of attachment, there is one type which snaps on to cover a track or a base (1, 2, 4 below); a second group might include all those applied with screws or nails, or some type of special fastener (3, 6, 7 and 8 below); the third kind would come under the structural classification, and are used where a method of supporting the wall covering is needed (5 below).

Another way of grouping them is as to finish, such as stainless steel, chromium, copper, brass, baked enamel or aluminum, while a third classification might be in regard to the manner of manufacture, some being all metal, others being metal covered wood. The metal may be plated or solid, rolled or extruded; construction



ABOVE: Metal mouldings illustrating various types of attachment. Nos. 1, 2, 4 and 5 are two-piece types, having a base member which is applied first to receive the cover member. Nos. 3, 6, 7 and 8 are installed in one piece and held in place with special screws, nail clips, fasteners or cement.

LEFT: Stainless steel mouldings used with porcelain enamel sheets on small restaurant building. Right: A small bar and a residential bathroom showing two types of interiors effectively handled by using metal mouldings.

With Modern Wall Finishes

may be of one, two or even three members. Most manufacturers have lines which include a wide variety of styles and finishes in one or more types of construction.

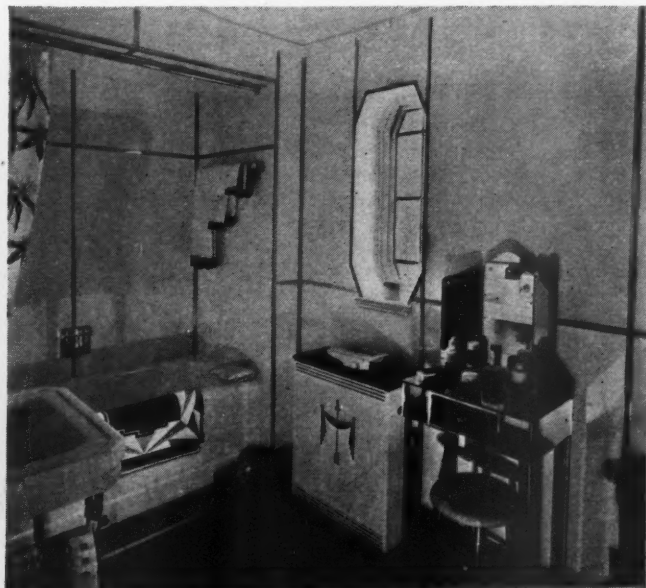
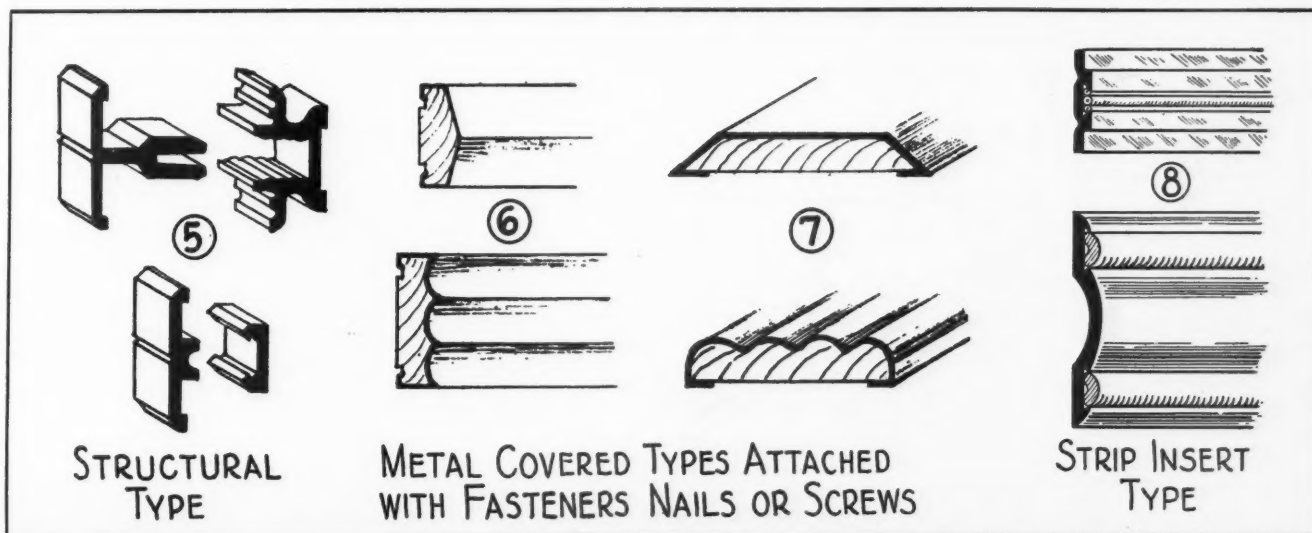
From the many lines of the market, it is possible to choose exactly the right type of moulding for any job. Where decorative treatment is of primary consideration, those which are applied after the wall finish is on will be found very satisfactory for covering joints and serving as trim. Some snap-on types are designed for this purpose, and because all nails and screws are covered, they are particularly suitable to certain types of work. On jobs where it is not necessary to conceal the method of attachment, the screwed-on or nailed-on moulding often has the advantage of economy. In these types, however, the nails or screws need not be unsightly as the screws in one line (upper 3) have a decorative head which matches the appearance of a design stamped on the moulding at intervals, making it difficult to recognize the screws when in place. Drive-on mouldings can have the nails hidden, similar to snap-on-types (lower 3). The nails of these concealed adjustable fasteners are spot-welded to clips which slip into a groove and may be moved along to conform to studding or other nailing

surface. Nailing is done with a small pine block placed over moulding to prevent hammer marks.

A variation of the drive-on type is the bolt-on moulding which comes with machine screws fastened to the back instead of nails for application on jobs where the nuts can be tightened up from the rear of the finished wall. For the nail-on type (6 and 7), special escutcheon pins plated to match the mouldings are available. Where face nailing is not desired, a cement which adheres permanently to all surfaces can be utilized. One of the newest types of mouldings (8) has a channel (wider styles have two) along the surface; the attaching nails or screws fit in channel and a special filler insert is slipped in after the moulding is in place. These inserts come in various color combinations and forms, such as beading, braid or patterned strips. This latest color innovation is also available in snap-on mouldings, the color stripe being recessed below the surface to insure permanence.

Types 4 and 5 are intended for use in joints between boards, the base member being applied before the wall finish material and the top member covering joints.

Metal mouldings have become a very popular medium of wall trim, and by replacing the wood batten strips or exposed nailing which were objectionable to many people, they have opened up a larger field for the application of the many new modern dry-wall and wall finish materials now on the market.



This Basement Won First Prize

**Chicago Coal Merchants Award \$2500 in
Local Basement Modernization Contest**

THE Henry Thiele basement at 5403 Kammerling avenue, Chicago, has been selected as the most outstanding of approximately 200 entries in the modernized basement contest conducted by the Chicago Coal Merchants association in the metropolitan area. Thiele was awarded the first prize of \$1,000 at a luncheon planned by Joseph D. Biety, president of the association. Other prizes ranging from \$500 to \$25 were also awarded, making twenty-seven in all for a total award of \$2,500.

The Thiele basement, the judges found, effectively combined ingenuity and practicability and was outstanding on the major points considered—livability, extent of usefulness for the whole family and the assimilation of new, modern ideas on basement arrangement. Like other basements entered it met the requirement which called for the use of coal or coke as regular fuel.

Appropriately furnished are two large rooms—a library and card room—in the Thiele downstairs area. The walls are of knotty pine, with an arched entrance

leading from one room to the other. Up-to-date lighting, modernistic furniture, judicious use of drapes and a polished floor all lend the proper touch. Among its other conveniences are a shower bath compartment and a coal heating plant employing bin-feed type of stoker.

Other entries displayed a wide variety of uses being made of basements. Some have been converted into play spaces for children, social gathering places, athletic quarters, buffet corners, recreation centers for adults and youngsters, and quiet retiring dens for purposes of study or relaxation.

The \$2,500 prize contest was inaugurated, according to Biety, for the purpose of creating a greater consciousness on the part of home owners toward basement modernization. The appropriateness of having home owners combine basement livability with the use of a clean up-to-date coal and coke product, he said, was felt to be of enough importance at this time to broach the subject in concrete form—a prize contest.



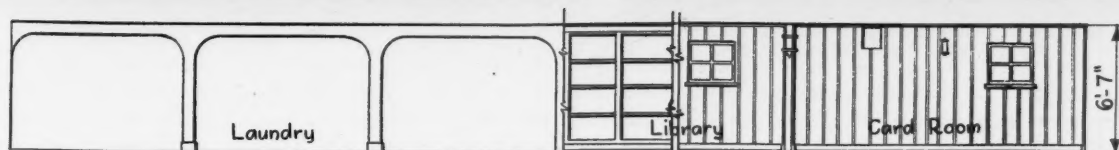
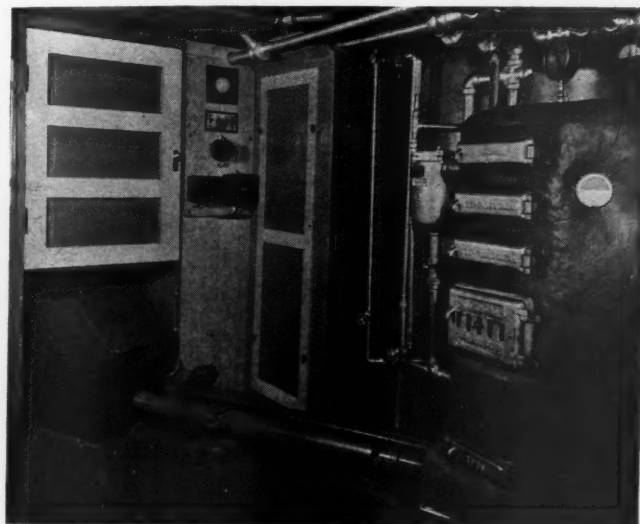
FIRST PRIZE for a modernized basement in Chicago area went to this Henry Thiele job; library and card room as on floor plan opposite.

The Chicago Coal Merchants Association has also recently opened a permanent "clinic" on basement modernization; a ground floor display room along famous Michigan avenue has been transformed into a two-room, ultra-modern basement, attractively decorated with Celotex ivory and tan finish plank, and completely equipped with up-to-the minute furnishings.

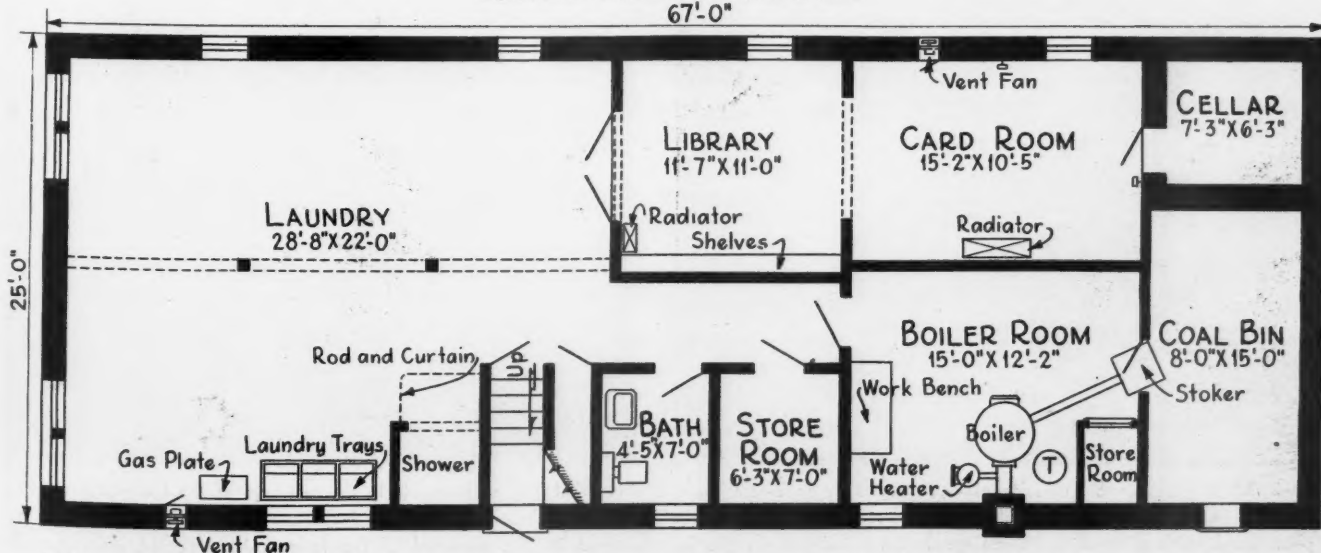
Several firms cooperated to provide this exhibit where dealers in the Chicago area can demonstrate how the basement of any house can be made a livable part of the home. Space for the model basement, which is visible from the street, was supplied by the Bell & Zoller Coal Company; the Bishop Lumber Company of Chicago furnished the Celotex finish plank and Texpord to frame the display window; the coal stoker was installed by the Link Belt Company; a combination ping-pong and billiard table, and a buffet-bar were supplied by the Brunswick-Balke-Collender company; while the Howell Company furnished the rooms with sparkling chromium furniture.



COAL DEALERS in the Chicago Area use basement modernization "clinic" (above) in Association offices to show home-owners how basements may be easily transformed into livable rooms. With coal stoker, Celotex walls, games, buffet-bar and chromium furniture, the appeal is general.



SECTION THROUGH BASEMENT
67'-0"



LAY-OUT of First Prize Basement. Above is view of heating plant with wormfed stoker from fuel bin and view from the laundry.

Window Conditioning Urged to Halt Condensation Effects

Report of Government Chemist to Lumber Dealers of Deep Interest to Builders and Home Owners

THAT excessive condensation which is destructive to window sash and doors can be eliminated by Window Conditioning in the form of storm windows or proper installation of double window units by one or another method is the opinion of Dr. F. L. Browne, senior chemist, Forest Products Laboratory, United States Department of Agriculture, Madison, Wis.

In his report to the retail lumber dealers association

of a large Middle West city, which had sought his advice in connection with the development of bluestain in sash of a number of recently-built homes, Dr. Browne made recommendations that are of wide interest to lumber dealers, speculative builders, contractor carpenters, and home owners generally.

The houses inspected were two-story or story and a half single family residences of better-than-average price level. They were similar in certain construction features having a bearing on the bluestain trouble.

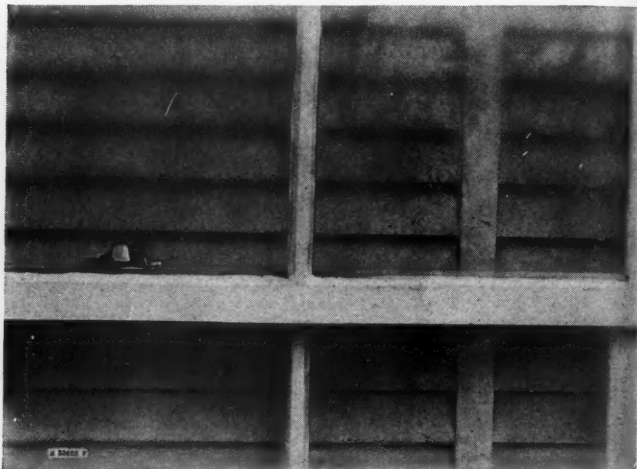
They were of frame construction, usually with brick veneer, but sometimes with lumber siding on the second floor. All had gable roofs, but in most cases the attic was unoccupied, its cubic content relatively small and not always ventilated with louvres or windows. There was rarely a stairway to the attic, but attic floor and sidewalls were well insulated, although no vapor barrier was used on the warm side of the walls or attic floor. Doors and windows were tightly weather-stripped, but usually there were no storm windows and the windows had only one layer of glass.

The heating plants were of the warm-air type, with forced circulation and provision for humidification, though the humidification control was said to be either

(Continued to page 94)



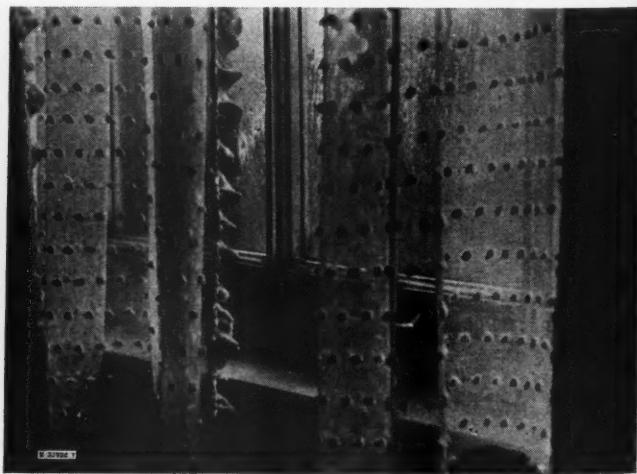
A TYPICAL sash taken from a house in which all of the sash were replaced because of bluestain. This sash was taken from the pile at random and is no worse than most of the others. These sash had been dipped by the manufacturer in a solution containing a toxic.



CONDENSATION on the inside surfaces of windows aggravated by the drawn Venetian blinds. This view is taken from the outside looking in. The sash in this house had recently been repainted, although the house was only a year old, in order to hide the severe bluestain.



FAILURE of paint on the exterior of sash caused by condensation of moisture on the inside. A little bluestain shows through faintly in the photograph but in general the bluestain was most prominent on the inside surfaces. There was no condensation on this window when inspected.



AN EXAMPLE of bluestain in the sapwood of the lower sash rail in a bedroom window and the condensation of moisture on the glass that caused it. The sapwood of the lower rail contained more than 24 percent moisture, the heartwood 22 percent.

Pittsburgh Apartments Rate High

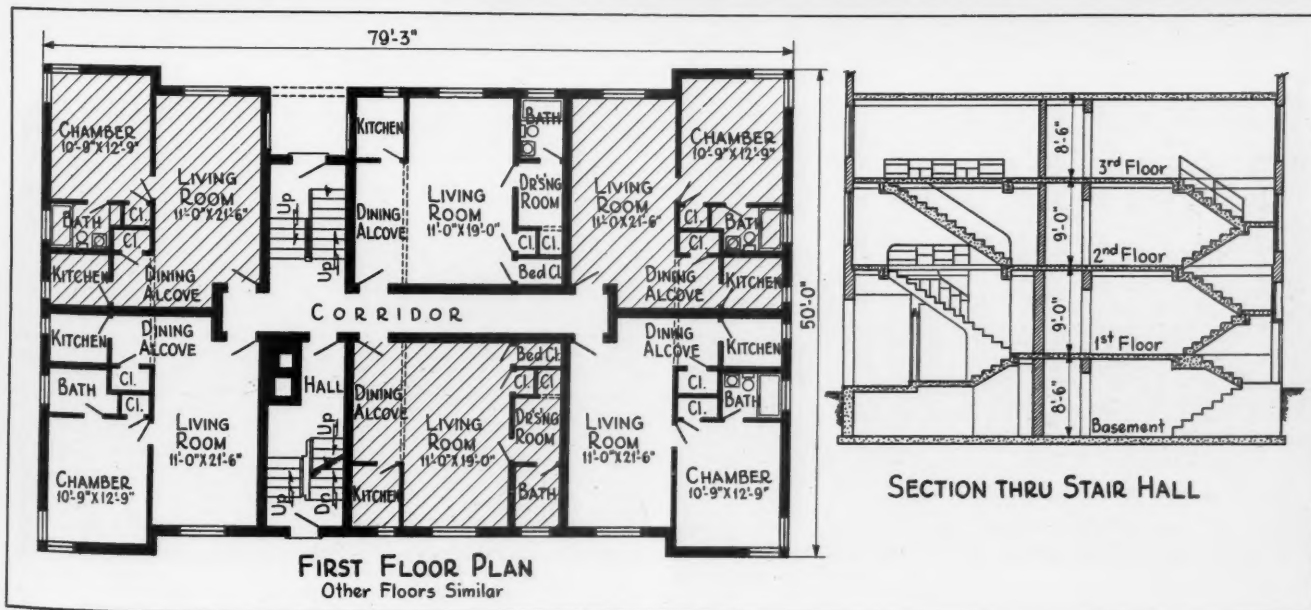
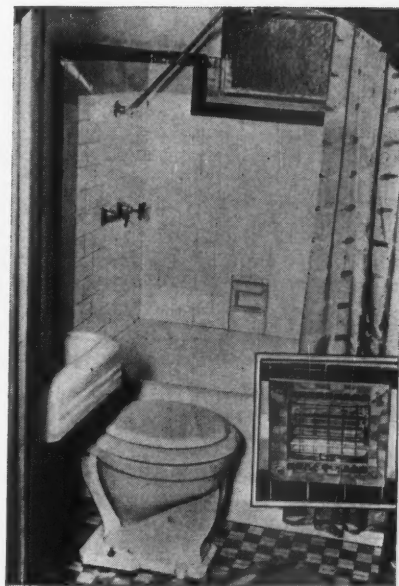
Steve Kovach of Keystone Construction Company Builds Popular Rental Group; Electric Bath Room Heaters Cut Costs.

PALM GARDEN VILLAGE, a group of three apartment buildings containing 54 efficiency units of two and three rooms, was planned and built in the summer of 1937, demonstrating to Pittsburgh interests how private enterprise and capital can successfully provide needed modern housing on a sound profit basis. This group is located on South Hills, two blocks west of the southern entrance to the Liberty Tubes.

Each building contains suites of two and three rooms with beautiful tile bath and shower, Shepler Radia Electric Heaters, Masonite "Century of Progress" flooring, Rezo doors, Chase lighting fixtures, Milwaukee Flush Valve shower heads, Fenestra casements, Rol-a-way bed and a complete separate kitchen with G. E. refrigerator, cabinet sink and gas range. Rentals range from \$42.50 to \$47.50 per month. Financing was by means of a 10-year 4½ per cent insurance company mortgage.

Builder Kovach, a Carnegie Tech graduate of '23, improved the popularity of his apartment and at the same time saved \$12 in construction costs of each bathroom by using built-in wall electric heaters instead of radiators.

COMPACT bath-rooms feature the Shepler Radia Heater, Wall-Weigh built-in scale and Adjusto shower and tub faucet.



THREE buildings set in triangular form around a landscaped court comprise Pittsburgh's biggest housing project of 1937. Floors and stairs are of poured concrete; Steve E. Kovach, Jr., designer and builder.

Gothic Rafter Barns

New Laminated Rafters Developed To Cut Cost and Save Time

THE strength and style of the curved rafter or Gothic roof barn are appealing more and more to farmers; and both barn builders and retail lumber dealers are showing a growing interest in this type of construction. Everyone at all familiar with barn building problems knows that a most important one is to build to withstand the strong wind pressure against sides and roof and still have the structure remain rigid and in alignment.

Some years ago Prof. Henry Giese, of the Iowa State Agricultural College, in collaboration with the Rock Island Lumber Company, began working on an idea for laminated Gothic rafters that would be stronger than rafters of the ordinary type and correctly designed in accordance with engineering principles. They finally developed the rafters which have now been placed on the market under the trade name of "Rilco."

Tests Developed "Streamline" Contour

In working out the design for these new Gothic rafters, a large number of tests were made to determine the action and pressure of strong winds against large structures of this type. It was necessary to change the curve on the rafters many times before the correct radius was found that would cause the wind to pass off the roof rather than form a back pressure on the opposite side. It is a well known fact that the automobile industry has given much time and study to the effect of wind resistance in designing the new model cars so as to eliminate it insofar as possible. Now the same principles have been applied to the construction of large farm buildings, and farmers and barn builders are going to welcome this development because they know its importance.

These new rafters are constructed of clear Douglas fir glued in a curved form under a pressure of approximately 100 pounds per square inch. This method of

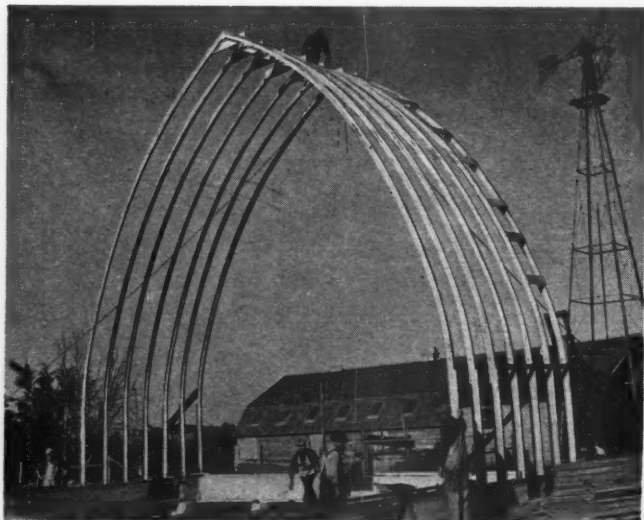


COMPLETED laminated rafter construction for barn of No. 1 type, wood frame down to low foundation.

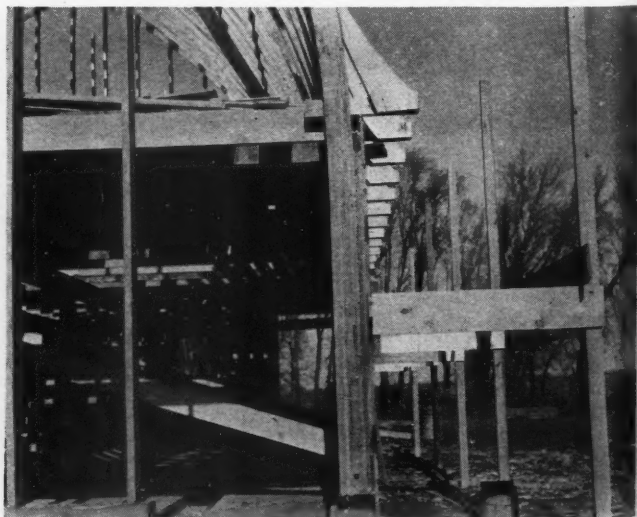
lamination increases the structural strength of the manufactured member making it stronger than a solid member of the same size. Gluing is preferred because nailed or bolted lamination was found to be not permanent; constant pressure on nailed or bolted lamination will in time loosen the bond and form a sag in the roof of the building.

The Rilco laminated rafters have been designed so that they are applicable in the construction of barns, granaries, hog houses, chicken houses, machine sheds, potato houses, silos, etc. Of course, the curves and lengths vary for barns of different widths. Then, too, the rafters are of different lengths and shapes for different types of barn construction. The rafters for a granary, naturally, will differ in many ways from the rafters for barns. The kind of building, its width and the type of construction are factors that determine the size, shape and specifications of the rafters.

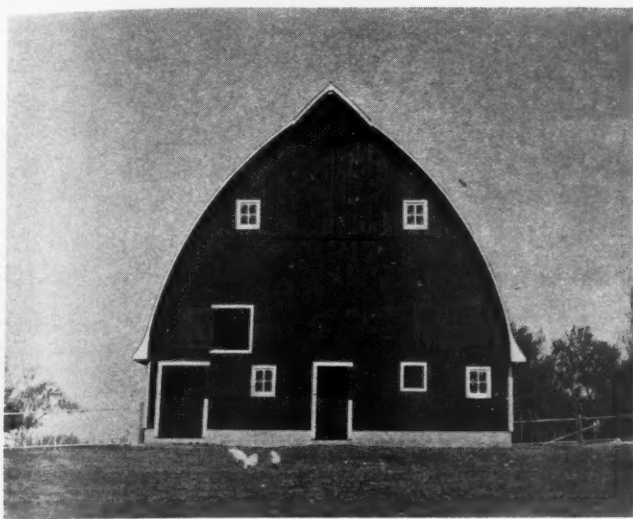
It is not, however, difficult or a complicated process to get exactly the right rafter for the job. All the builder or dealer needs to specify is the kind of building, its width, length and desired height and the type of construction to be used. With this information, the rafter



RILCO laminated curved rafters being raised into place for Type 1 barn construction.



CLOSE-UP showing lower wall section of Type 1 barn rafter; extra plies foundation to plate, make strong stud.



COMPLETED Type 1 barn. Type 2 is similar except that curved rafters rest on top of regularly framed or laid side or basement walls.

fabricating shop can supply the correct rafters without delay.

While the rafters themselves are a decided innovation in the farm building field, a thing that is going to be equally revolutionary is the new type of continuous wall and roof construction they make possible. This rafter rests on the foundation sill and extends, without break, to the peak of the barn. From the sill to the ribband (about 8 feet above grade in most barns), the rafter for a barn of average width is 9-ply and from that point to the ridge is 7-ply. The two extra plies up to the ribband act as a stud. Joists are placed on top of the ribband but additional strength and perpendicular rigidity as well as horizontal is gained through the use of a special 2-inch dowel joining the rafter and the joists at their center point of intersection. A bolt extends through the rafter, the 2-inch dowel, and the floor joists.

Experience shows that this new type of construction welds the structure into one solid mass or unit that will withstand every stress or strain that might normally be put upon it without any appreciable variation in alignment in any direction.

Another rafter design is available for structures where the conventional stud and sheathing wall is used up to

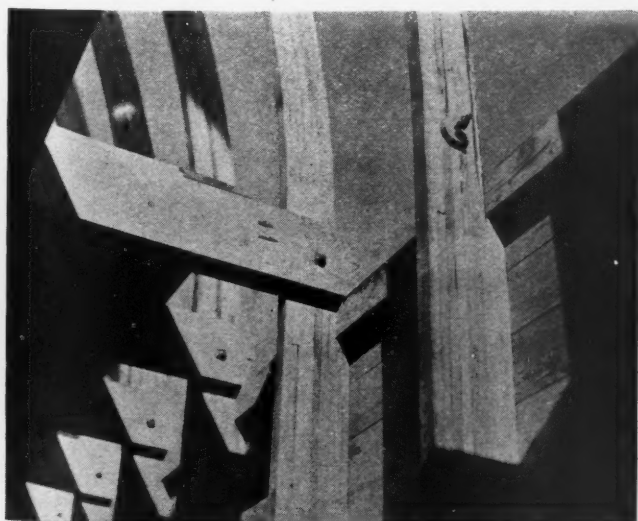
the mow floor or above. This type rafter may be fastened to the plate and floor joists or plate which rest on top of a wood or block wall. Anchored to the wall and permanently connected to the floor joists, these rafters produce a construction feature that forms an especially rigid and permanent unit.

A feature of this new type of rafter is that it results in a substantial saving in labor costs. A crew of six men raised and placed all the rafters for a 36 x 72 foot barn on the farm of C. F. Peterson at Rake, Iowa, in approximately five hours. The continuous wall and roof construction was used in this Peterson barn. The following figures on the Peterson barn will give dealers and builders some idea as to its actual cost. This 36 x 72 foot barn was constructed for \$2,875, including labor, material, barn equipment and two coats of paint. Compare this with the published costs of a similar large barn illustrated in the November issue of the "Retail Lumberman." The material alone for this barn, measuring 34 x 80 feet, amounted to \$3,965, it was stated; which figure did not include labor.

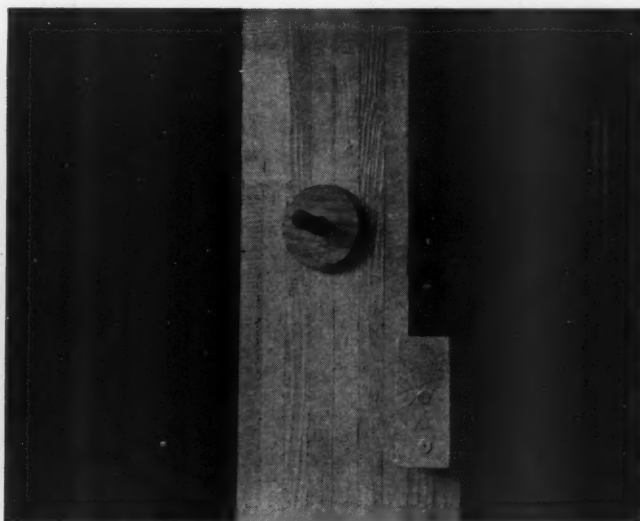
Proof Against Condensation

A factor that farmers in the northern section of the country, particularly in Minnesota, Northern Iowa, the Dakotas and Wisconsin, must take into consideration is the condensation of moisture on the walls of the barn. Experiments and actual construction show that by using the Type "1" continuous wall and roof construction and insulating the walls with Balsam-Wool or any comparable insulation, the farmer will have a wall that will virtually eliminate condensation.

Barn building and all other farm improvements should get quite a stimulus from the new FHA insurance of farm mortgages. Where 15 per cent of the funds go into building improvements this government bureau insures the loan secured by farm property the same as it has been doing on city and suburban homes. Farmers who operate their own farms, individuals who rent their farms to others, and farm tenants and others who contemplate the purchase of farms are all eligible to borrow from approved institutions under the terms of Title II of the Act. Institutions approved by the FHA as mortgagees, which may apply for insurance on farm loans, include banks, building and loan associations, life insurance companies, mortgage companies and other lending agencies.

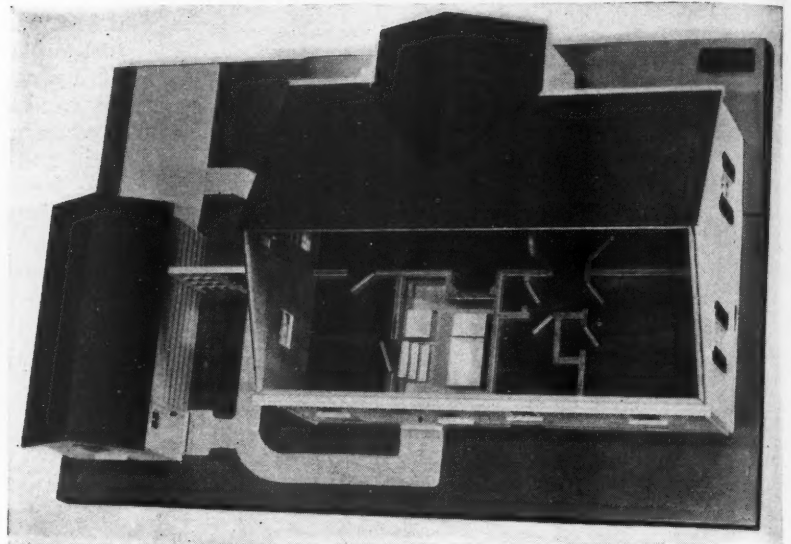


CONSTRUCTION at plate showing dowel, joists, and laminated rafters where they reduce from nine-ply to seven-ply.



DETAIL showing dowel and laminated construction at top of side wall where mow joists rest.

Model Building Goes Modern



BIRD'S EYE VIEW of "Certigrade House" model, with roof section removed to show interior arrangement. Low partitions of plywood indicate the size and location of each room.

Ingenious New Machines Created to Cut Laborious Hand Work in Building House Models to Scale

IN RECENT years the building industry has been concerned with the erection of low-cost houses as a means of widening its markets. During the past year a newly-formed company in the Middle West has concerned itself with the production of low-cost house models as a means of helping the industry streamline its selling and facilitate the sale of full-sized houses of all price classes. The company is known as Model Builders, Inc., is headed by H. C. Paschal, and has its factory at 4731 N. Western Avenue, Chicago.

House models find many uses as sales helps in the building field, and in the marketing of building materials and equipment. An architect customer of the young company recently sent in blue prints of a Georgian house that was to cost \$19,000 when completed. A scale model was to be made from the blueprints, but when work began on the model a serious error in the plans was discovered, and was corrected before actual construction of the house began. The architect thus maintained an unmarred reputation through use of a model, and his client unknowingly escaped what otherwise might have been a costly mistake.

Two middle-western builders of high-grade speculative houses make it a practice to interview prospective owners in their homes. Here they present and discuss plans, specifications, and exhibit a scale model of the house they are offering. Few laymen can visualize a house from blueprints, or even from elevations, but models remove all doubts and uncertainties, and enable the prospect to see exactly what he will get. The builders quite naturally make favorable impressions by these methods, without the necessity of taking prospects to completed, or partially completed houses until they are definitely interested. The number of effective calls is increased considerably. The method is so effective that both builders now use a model of every house they build as part of their sales equipment.

House models also find many uses in the display field,

to demonstrate uses of materials, or as a method of arousing general interest in building activities, in home shows, trade conventions, window displays, and display rooms. They are used by lumber and building material dealers, contractor-builders, architects, trade associations, manufacturers, financing organizations, and all allied branches of the industry.

Model Builders, Inc., was started in a very unusual way. Late in 1936 a company was organized in Chicago to participate in the rising tide of building activity, to erect small homes, both speculative and contract. Principals of the newly-formed concern planned to use ultra-modern selling methods. They intended to develop a number of excellent plans, then to equip their display rooms and sales organization with models of each house they had designed and were offering for sale.

The idea of streamlined salesmanship was quite in line with those of the day. Home designs were prepared, and the company set out to obtain scale models. Weeks were spent in search for model builders who could produce the desired units at a price the company's executives felt they could pay. They decided that the most practical course was to equip a small shop and build their own models.

New Methods Were Invented

Many problems had to be solved. New production methods were devised, and special machines were invented to eliminate some of the slowest, most expensive hand operations that heretofore have been a necessary part of model making. It was found, for instance, that 90 to 100 hours of hand work was required to produce brick siding effects on enough material to make a single ½" scale model of ordinary size. The company developed a special machine that does the work in 30 seconds or less. Strips of high-grade plywood are pushed through the machine and come out the other side ready for coloring. Special dies were made to produce effects of shingles, wood siding of various widths, flagstones, and similar materials in an equally short time. Each production problem was studied, and wherever possible, a machine was devised to handle the operation.

After months of experimentation and development work, many slow, laborious operations had been eliminated, with the result that complete scale models now

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are produced from blueprints in one-tenth the time formerly required, and for one-third to one-fourth the cost. It soon was discovered that many professional men in the building field, and many companies are interested in obtaining low-cost house models. This outside demand was cultivated. What began as an incidental, side-line activity became a major interest of the concern. The original building corporation was dissolved and a new company was formed to engage in commercial production of house models. Today, the factory is turning out models of all kinds for a rapidly growing clientele.

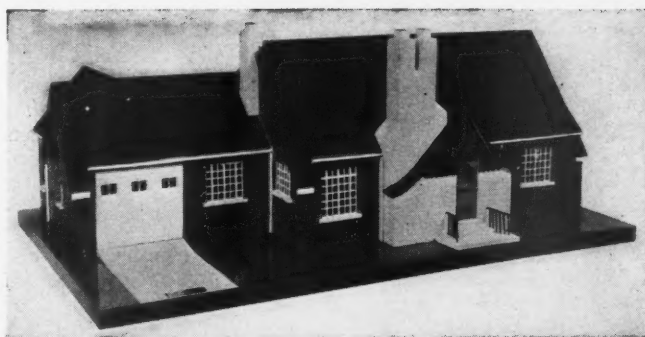
A noteworthy advantage of using scale models is found in the way they help prospective owners visualize floor plans. Preliminary low-wall models are made to show the location of all outside and inside walls, thus indicating the size and position of each room, closet, doorway or arch, stairway and stair well. Names of rooms and their dimensions may be indicated by stickers pasted to the floor.

By examining these preliminary layouts, owners can decide whether the proposed room arrangement and sizes are satisfactory. If changes are desired, the low, plywood partitions are easily moved, or the entire interior can be rearranged. This method assures satisfied clients, and eliminates some costly changes that might otherwise be demanded when the building is under construction. When the floor plans have been OK'd, this preliminary low-wall model becomes the foundation on which side-walls, roof, windows, entrances, chimney, trim, and other details are added—all in accurate scale.

Roofs Are Removable

Roofs of the completed models are removable, so that users can examine interiors, check room arrangement and dimensions. The second floor of two-story models is a tray that can be lifted out when desired, so that the first floor room arrangement can be studied.

Models are made of plywood, with natural finish interiors, and colored exteriors. Waterproof finishes are used throughout, so that the houses can be cleaned with soap and water. The models are light in weight and sturdy.



BRICK SIDE WALLS, rubble-stone chimney, vertical knotty boards over the front door, and shingle roof are reproduced in natural colors in this model. Details such as casement windows, iron porch railing, garage and front door, gutters and downspouts are made to scale.

The company finds that uses of models have scarcely been tapped, and learns of new applications almost every day. Some house models are built on wooden bases. Others may be "half-shell," that can be hung on a wall. Special models are made to show details of front entrances, cross-sections of wall construction to demonstrate framing details, or "cut-away" effects to show use of insulation, or other materials. Owners who are fortunate enough to have models made prior to construction of their homes, invariably want and take considerable pride in having the model after the dwelling is completed.

The company has made several models of the Red Cedar Shingle Bureau's new "Certigrade House," designed by National Plan Service, Chicago, and granted FHA Loan No. 1. One of these models recently was carried into a session of the Senate by Washington Senators Homer T. Bone and Lewis B. Schwellenbach. Senator Bone referred to the model in an address describing and praising activities of the lumber industry to stimulate home building.



PART OF THE PLANT of Model Builders, Inc., devoted to the production of scaled house models by streamlined methods. Special machines are used to eliminate laborious, time-consuming operations, and to produce accurate effects of various side wall and roof coverings. Use of house models simplifies selling, because prospective owners can see exactly how their homes will look when built.

Concrete Joists Molded by New Vibration Method

CONCRETE joists, newest member of the concrete products family, are making rapid strides in winning public acceptance and are enjoying constantly expanding use as they become better known. Such is the story which comes back to the R&L Concrete Machinery Company of Kendallville, Indiana, from users of its vibrating table and joists gang mold equipment.

Where joists are not being manufactured there is no way of gauging the potential demand, because in common with any other product requiring introduction to a local market, demand develops only from contact and proof of ability to supply requirements. The result is that demand builds up after initial jobs have been installed and opportunity has been afforded to check the ease of placement and the comparative cost.

An excellent example of widening use is afforded by a products plant in South Bend, which at the time of a very recent visit, had a single order for over 2,500 lineal feet of joists, in addition to orders for joists for four residences and for flat roof and deck for a local Yacht Club. Single jobs for as much as a mile of joists, and a half mile of joists for this plant, indicate the character of demand and the substantial volume which can be built up in this field.

Investigation of plants manufacturing joists clearly shows that the business is not one to be engaged in to the exclusion of other products but rather that it is an effective supplement to an already established business and gives opportunity of substantially increasing the total dollar volume of sales to a given job. Curiously enough, it has been found that the sale of joists helps to sell other concrete units, particularly, concrete block for exteriors, and concrete partition units for building interior walls.

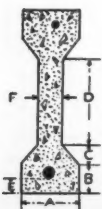
The flexibility of the R&L Vibration Equipment is quite remarkable as in a single form, joists of varying lengths can be cast together with short joists for framing, offset joists for bridging and spacing, etc. This is accomplished by means of ingenious rubber off-set and stop blocks which can be located at any place along the length of the table desired by the operator.

Precast floor slabs are made in a gang mold which will cast 80 slabs in a single mold, making it possible to make as high as 160 slabs at one time on a single vibrating table. Every slab has an area of 3.75 square feet.

The same table is adaptable for the manufacture of sills and lintels and copings and other special products such as roof tile, fence posts, concrete stairs, etc. In casting the stairs, the stringers are cast in one mold assembly and the individual stairs con-

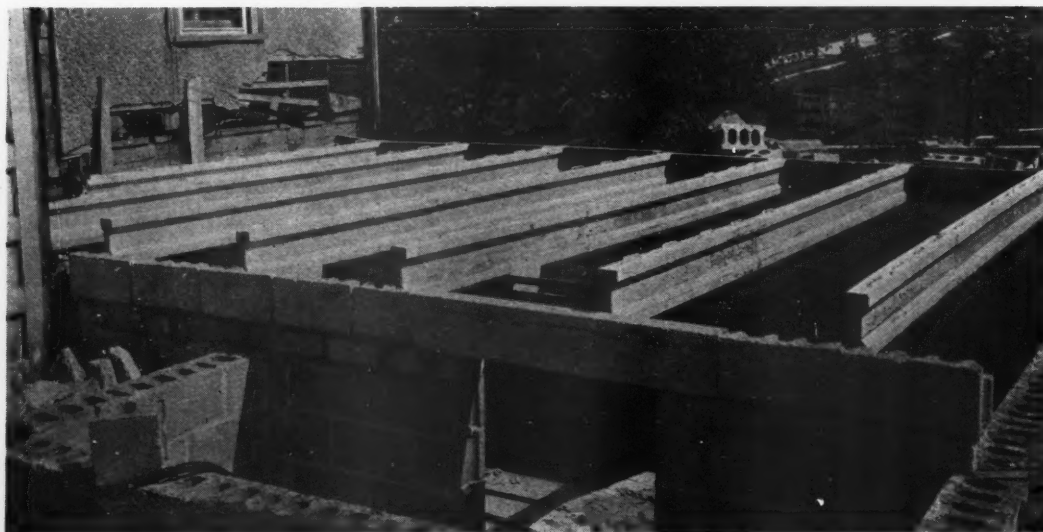


VIBRATING Table (above) with glimpse of electric vibrating motor; below is shown gang of joist molds on table; filling is either by hand or spouted gravity feed.



Dimensions and Specifications of Concrete Joists

Size Inches	A	B	C	D	E	F	Average Weight	Maximum Span	Section Area Sq. In.
8	3	1 1/4	7/8	3	1	1 1/2	19	16 ft.	18.2
10	3	2	1	4 1/4	1	1 1/2	23	20 ft.	22.1
12	4	2	1 1/2	5	1	1 3/4	35	24 ft.	33.4



CONCRETE Joists being used on a house addition; Pre-cast slabs will complete this floor.

sisting of tread and risers in suitable gang mold. The stringers are cast eight at a time and the stairs twenty-four at a time.

It is a simple matter to place the concrete stair on the construction job as the offsets on the stringer permit the immediate placement of the stairs on stringers soon as the latter are placed between the floors.

It is readily perceivable how these specialties contribute to increasing the volume of sales for the concrete products manufacturer and how they contribute to the complete concrete home. The R&L Concrete Machinery Company has pioneered the vibration gang mold specialty field and has placed its equipment in practically every State in the Union. The products referred to herein are of interest to the manufacturers of concrete products; and with the constantly expanding use of this equipment, it is easy to visualize a greatly expanding utilization of factory made concrete products of dependable quality.

R. & L. Now Controls "Macstone" Production

THE R&L Concrete Machinery Company of Kendallville, Indiana, has been appointed exclusive representative and licensing agent for Insulated Natural Stone under the McKenzie patent, succeeding to the business previously carried on by Frank Navratil under the name of the Insulated Natural Stone Company of Milwaukee, Wisconsin.

Insulated Natural Stone or Instone, as it is also called, will hereafter be known as "Macstone." This trade name was adopted in recognition of Mr. Donald A. McKenzie, the inventor.

"Macstone" is a thin facing of natural stone backed with a light weight insulating concrete, combining the advantages of light weight concrete masonry units, with the advantages of virgin stone. To date all plants licensed have been using the well-known Briar Hill Golden Tone Sandstone, which is quarried near Glenmont, Ohio. Through the use of this colorful ashlar wall facing, architectural distinction is multiplied and enhanced. "Macstone" can, however, be made with any good grade of building sandstone.

The process of making "Macstone" involves the placing of concrete on both sides of a thin slab of natural stone, splitting through the center of this same stone after concrete has cured. This method of splitting these units produces an infinite variety of uneven faces, making duplication impossible, as well as giving that highly sought after light and shadow effect that architects and builders strive to achieve.

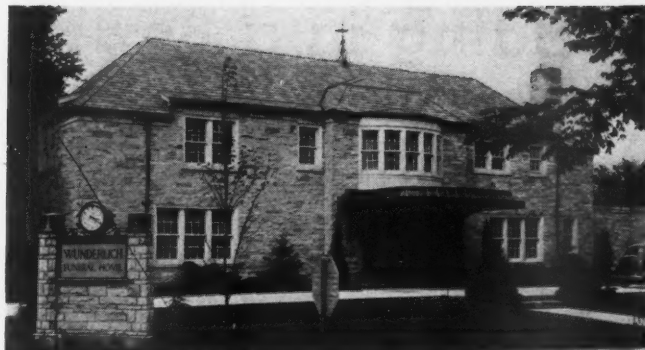
This development in stone faced wall construction is unique because it permits great economy of labor in the use of natural stone, without demanding any compromise with good architectural principles, nor does it involve any deviation from standard construction practice.

Persons viewing complete structures built with "Macstone" predict widespread acceptance and use of this material. It makes available for low cost construction, natural stone, which has heretofore been limited to use on buildings where a premium could be paid for its colorful beauty. This same colorful beauty can now be had with "Macstone," as it compares in price with a good grade of face brick, and substantially under the cost of solid stone.

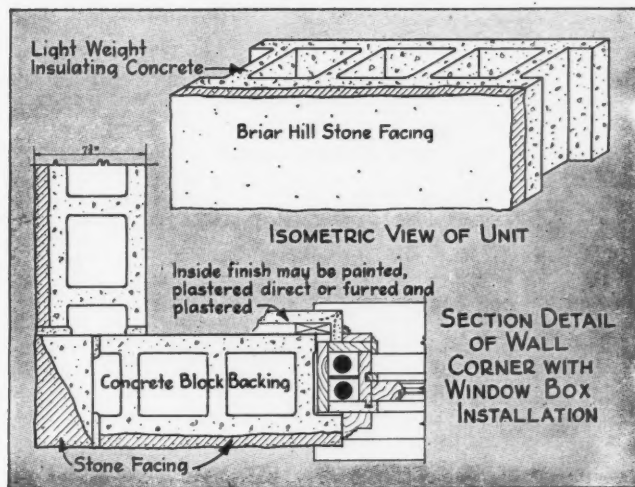
Using "Macstone," past users have stated that it is possible to erect homes of it in the five and six thousand dollar class, as well as structures of unlimited cost.

The method of making "Macstone," as well as the product, is patented. License for producing "Macstone" is granted on an exclusive basis. Several plants have already been licensed in metropolitan centers with choice virgin territory still available.

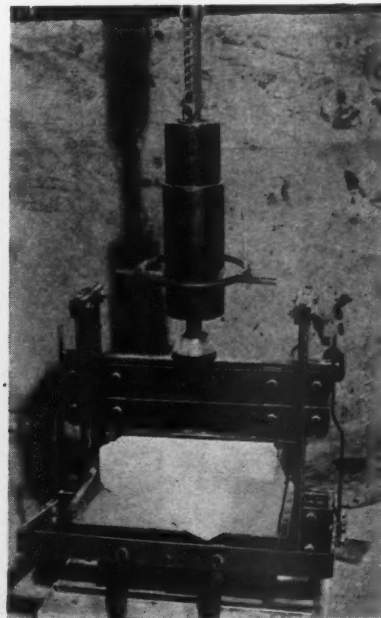
MACSTONE equipment: Below, a gang mold for producing stone-faced veneering block; right, the splitting machine which severs the block into two units through stone center core.



RECENT example of "Macstone" use; Wunderlich Funeral Home, Joliet, Ill., W. W. Alschlager, Architect, stone furnished by the Instone Co., Hammond, Ind.



The R&L Concrete Machinery Company, which for the past thirty-five years have been making concrete products machinery, will manufacture all the equipment for the making of Insulated Natural Stone, and have formed the "Macstone" Division, whose staff was joined by Mr. C. B. Dutton, and Mr. Frank Navratil. This Division has charge of all licensing and sales and maintains an engineering department which is prepared to give well rounded plant engineer services to its customers, as well as architectural and merchandising counsel and assistance.



Building in a Box

Milwaukee contractor incloses glass-walled structure in plywood sheathing for winter construction

ICY blasts from Lake Michigan didn't stop a Milwaukee contractor from going ahead with a rush building job in the winter of 1936, even though the exterior walls of the structure were entirely of glass tile, the application of which is decidedly not a cold-weather operation. However, the contractor made the whole job, excepting steel erection, a normal-weather one by inclosing the entire structure within a box of plywood with a canvas roof. Steam unit heaters kept the interior at a comfortable working temperature.

The job was a two-story mercantile building for the Plankinton Trust at West Wisconsin Ave. and North Second St. in the heart of downtown Milwaukee. The building, 84x100 ft. in plan, was to be occupied by a restaurant utilizing the basement and west half of the first floor, and a high-class women's apparel shop occupying the east half and corner and the entire second floor. The architecture is modernistic with a colored glass tile exterior. Steel columns and floor beams, concrete floors and brick walls make up the structure. The building costs about \$225,000, including complete air conditioning.

The site was ready for steel on Dec. 1, and three weeks later the simple steel frame was complete. All steel was erected by a single stiffleg steel derrick set up on the basement floor. Before the steelwork was finished, the wooden box to inclose the building was started.

The frame of the box consisted of two-post bents of 4x4-in. timbers, set normal to the face of the building with the inside post 2 ft. out from the building line. The bents were spaced at 8-ft. intervals; the two posts in

each bent were 5 ft. apart. Horizontal members on the outside of the frame were set at 4-ft. elevations; cross and inside members at 6-ft. vertical spacing. The cross members extended beyond the inside line of posts to the building line to act as supports for scaffolding.

The outside face of the double frame was sheathed tight with 9,000 sq. ft. of $\frac{5}{8}$ -in. plywood in 4x8-ft. panels. No diagonal bracing was required, for the plywood sheets provided sufficient rigidity to the frame. The wooden inclosure was required on the two street sides of the building only, as existing higher buildings adjacent to the other two sides completed the inclosure. A canvas roof closed in the top.

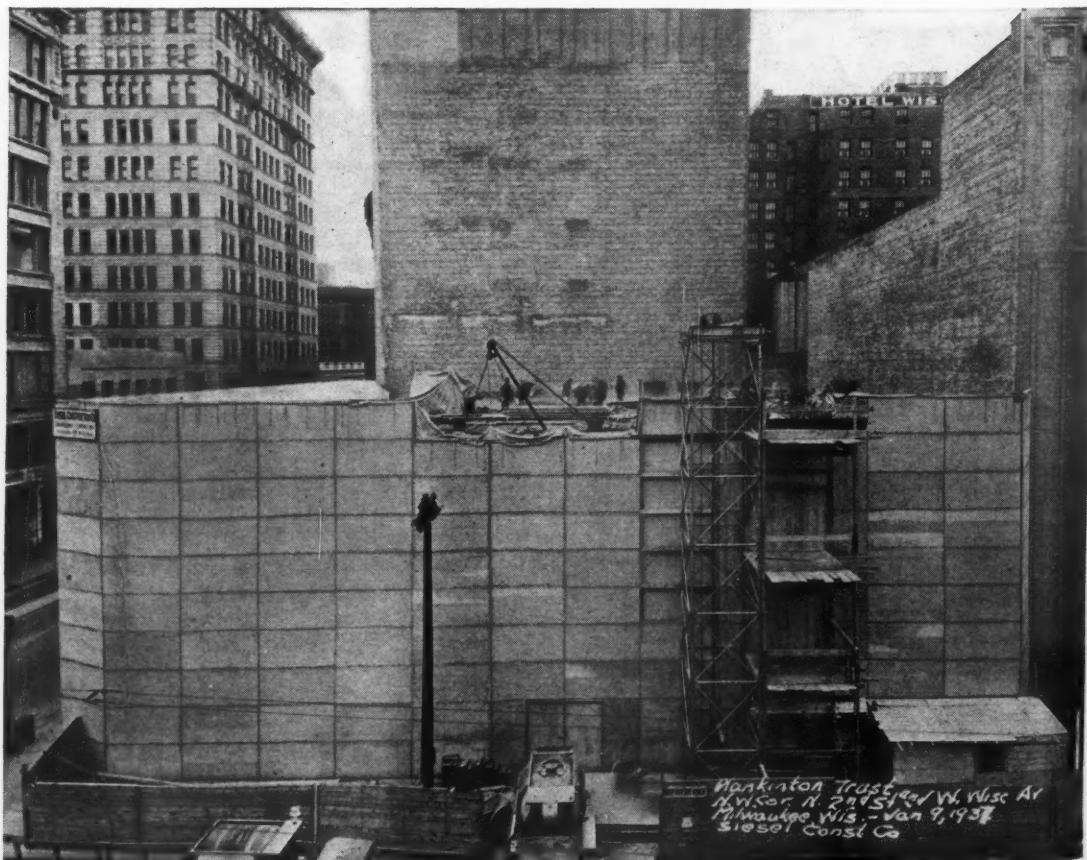
The utilization of the inclosure frame as a scaffold resulted in a cost saving that almost paid for its installation. In calling for subcontractor bids on the setting of the glass tile the general contractor specified that he would furnish the scaffolding. Consequently, the glass bids were much less.

Heat for the inclosure was supplied by five steam unit heaters of 700-sq. ft. size each. Steam was supplied from the city municipal steam heating system.

The box inclosure cost \$1,600 for labor and material. Allowing a salvage value of \$500 for half of the cost of material, the net cost was only \$1,100. The bill for steam for the entire job amounted to \$700. Installation of the heaters cost \$200, and the units were rented for \$45 each, or a total rental cost of \$225. The rental agreement provided option for buying the heaters, which was taken up as this type of unit proved so satisfactory.

The rigid inclosure interfered in no way with construction operations. A tubular steel hoist tower was set up on the North Second St. side, outside of the sheeting, facing landing stages built out at the mezzanine, second floor and roof levels.

The structure was built for the Plankinton Trust by the Siesel Construction Co. of Milwaukee. H. W. Bueming, Milwaukee, was the architect.



PLYWOOD walls and canvas roof enclose winter remodeling job in Milwaukee.

PRIZE-WINNING



All-Gas Home

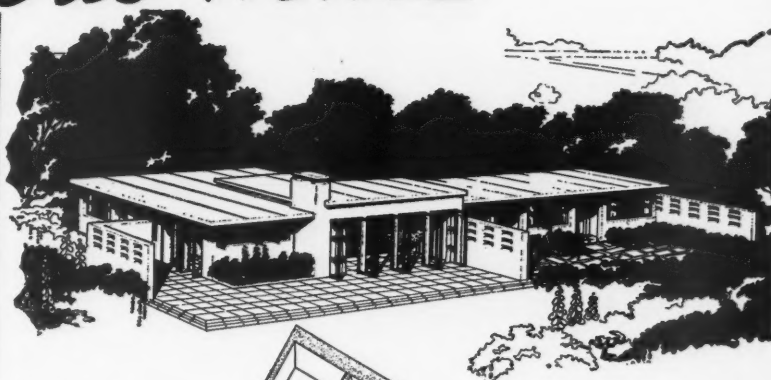
Working areas are compact and convenient . . . Unique advantages of GAS fuel permit concentration of equipment.

ALL housekeeping facilities are closely coordinated. The architect has capitalized on the cleanliness of gas, and the striking, space-saving designs of the new gas appliances.

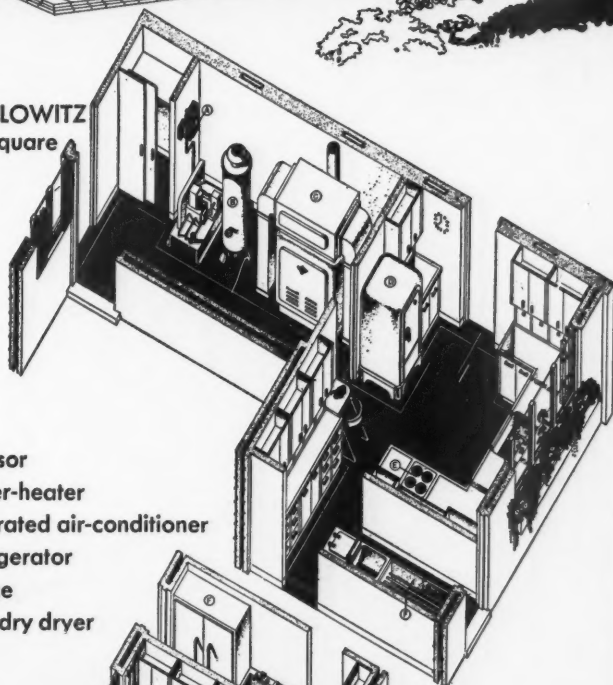
This centralization not only provides for convenient operation, but also assures economical construction. Elaborate flue and chimney work is avoided. Expensive basement excavation is saved, because no fuel storage space is required.

And operating costs in the house where gas does the 4 big jobs are lowest in history! Gas is more economical than ever. Gas equipment is more efficient than ever.

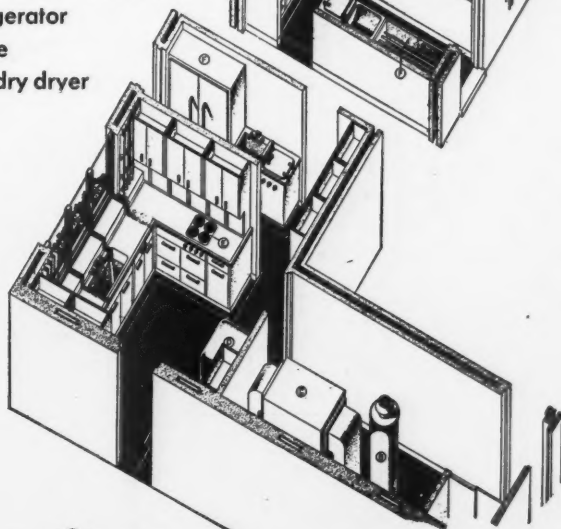
All-gas homes are easier-to-build, easier-to-sell, easier-to-keep. Consult with your local Gas Company technicians for full information and detailed specifications of the new gas ranges, refrigerators, and water and house heating equipment.



Architect:
JOSEPH SHILOWITZ
26 Journal Square
Building,
Jersey City,
N. J.



- A. Compressor
- B. Gas water-heater
- C. Gas-operated air-conditioner
- D. Gas refrigerator
- E. Gas range
- F. Gas laundry dryer



LET
GAS
DO THE 4 BIG JOBS

COOKING
WATER HEATING
REFRIGERATION
HOUSE HEATING



Be sure the gas appliances you specify bear the Approval Seal of the American Gas Association Testing Laboratories.

Now build an **AGA All-Gas Home** . . . enter the \$10,000 prize competition for builders and their architects.

The All-Gas Home Building Competition closes July 1, 1939. Write for entry blank and free booklet, containing all the information you need. Competition Director, American Gas Association, 420 Lexington Avenue, New York City.

SHOPCRAFTER'S Corner

Things To Build for Profit or Pleasure

Built-in Window Seats

WHEN building window seats, there is no standard height, but usually they look best if the cushion seats are almost on a level with the window sill, even if that is considerably higher than the height of a chair seat.

The first dimension you will want to know will be the height to cut the 2" x 4" piece marked "A" in the drawing below. Not knowing the height of your window sill, the only figure that can be given is to take this height and subtract from it 3 3/4" for cushion and top.

With this dimension, cut as many pieces of 2" x 4" for the uprights, "A," as you will need, cutting notches in the ends, as shown. If the window seat is five or six feet long, it will need a support at each end and one in the center.

The depth of the seat, vertically, or its projection from the wall to the face, is entirely optional. About two feet is normal, but of course you may make it 2'6", or even 3'0", the last in case you are figuring on it as a possible place to sleep.

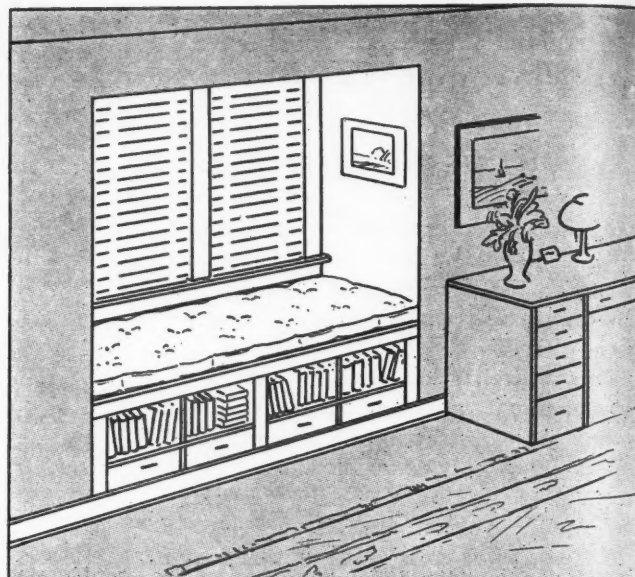
At a height exactly right for a rest for the horizontal 2" x 4" ("B"), nail a 3/4" x 3" strip ("C") to the wall, very securely, using long nails and getting them into studs.

Now a paneled face, or front is made, but this does not, of course, have to be boxed in. When it is, you will probably hinge the top, to open like a lid if you want to use the space inside for anything.

Alternatives are to nail the top down permanently and hinge the front, on its bottom rail, or to make the front of cupboard doors, as many as the total length requires.

More unusual is a combination of drawers and bookshelf, as sketched at the right where two of many possible arrangements in a room are indicated.

RIGHT: Suggested placing of seats for recessed or corner windows. Such seats can also be used along any wall with end tables or pier cabinets placed at the sides. Below, construction details. Design from "It's Fun to Build Things" by W. T. R. Price—Hillman-Curl, Inc.



Seat Arrangements for Recessed or Corner Windows

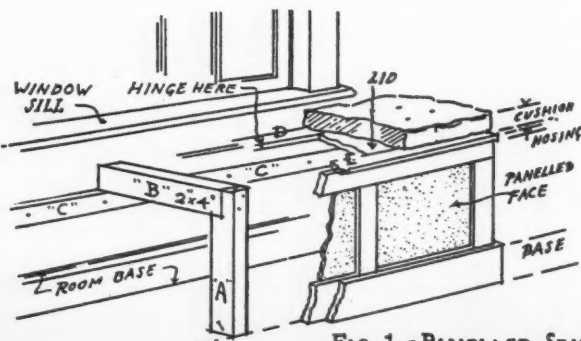
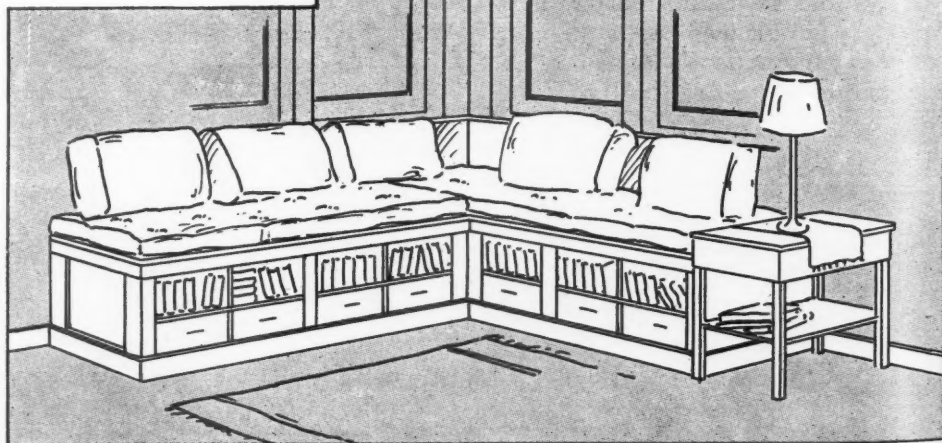
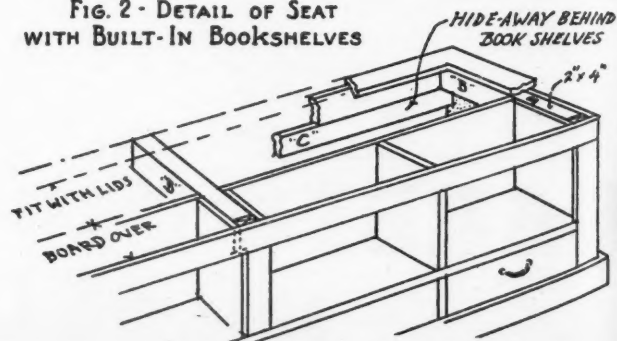


FIG. 1 - PANELLED SEAT

FIG. 2 - DETAIL OF SEAT WITH BUILT-IN BOOKSHELVES



THE VITAL ELEMENT

(TRINIDAD NATIVE LAKE ASPHALT)



The Vital Element is "mined" from the asphalt lake in huge chunks. "Headers" (shown here) carry it to waiting dump cars that transport the asphalt from the lake.

VITAL TO YOU . . .

VITAL TO YOUR CLIENTS!

The Vital Element is more than just a neatly turned phrase. It is an important factor in fine roofing. For *The Vital Element* is genuine Trinidad Native Lake Asphalt.

On the southern Caribbean Island of Trinidad the famous asphalt lake has been exposed for generations to a year-round summer sun. It has felt the fury of countless tropical tempests. Today this very same asphalt is shipped directly to the United States where it is used in manufacturing and building Barber Genasco Roofings.

Specimens of *The Vital Element*, taken from the lake at depths as great as 250 feet, show a uniformity of characteristics that is a definite asset in manufacturing and building fine-quality

roofings. Analysis shows that it contains a wear-resistant mineral filler colloiddally dispersed in a manner not yet duplicated commercially in any other asphalt. Roofing asphalts containing *The Vital Element* show by frequent tests superior weather-resisting properties.

Be sure the roofings you recommend and use bear the name Barber Genasco and you can be sure they offer the superb weather-resistance of *The Vital Element*. And when questions regarding roofings or other asphalt uses arise, submit them to Barber for an authentic answer.

BARBER ASPHALT CORPORATION
PHILADELPHIA, PA.

New York, N. Y. • Barber, N. J. • Madison, Ill. • Chicago, Ill.

Residence of Mr. Russell J. West, 3910 Club Drive, Atlanta, Ga. A charming setting, a charming home, and a charming roof of Barber Genasco Double Dipped Mas-Tab Strip Shingles.



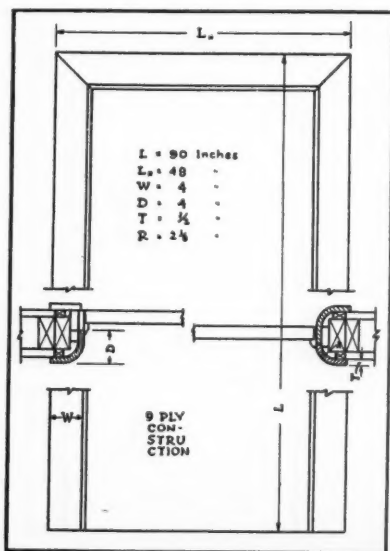
BARBER Genasco SHINGLES • SIDINGS
ROOFINGS • ROLL ROOFINGS •
BUILT-UP ROOFINGS

New Materials Developed to Aid Builders

Among These Improved Products Are Found Such Items As Modern, Rounded Door and Window Casings of Plywood

THE Jamestown Veneer & Plywood Corporation, Jamestown, N.Y., has added to its regular line of hardwood plywood panels new plywood rounded door and window casings that blend harmoniously into all modern interiors.

The new casings, named "Waterfall," are produced by a patented process that materially reduces the cost of using hardwood plywood applied to rounded corners and curves. The Waterfall line includes doorway and window casings and curved panels for corner applications. Both the doorway and window casings are completely packaged as a unit containing



THE drawing at the left shows elevation and section of application of plywood door trim; the view below shows appearance of the new rounded trim.



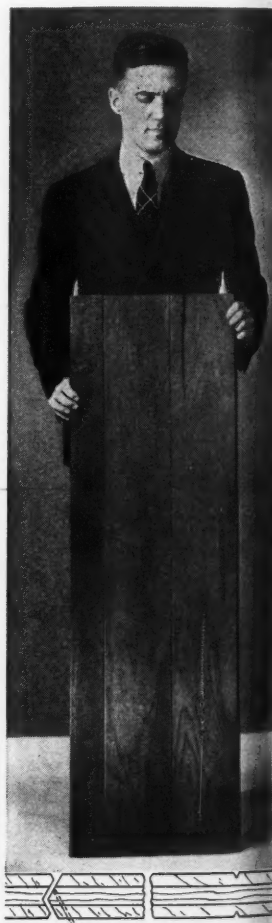
two stile casings and one rail casing of standard doorway and window sizes, ready for mitering and immediate installation. The curved panels for corner applications can be produced in any radii, thickness or number of plies specified by the architect or builder. The complete Waterfall line carries an identifying trademark for the protection of the architect and builder.

New Low Cost Wood Flooring

THE Haskelite Manufacturing Corporation, Chicago, has recently developed a compound wood flooring which is low in first cost, low in installation cost, and easily laid by any experienced carpenter. In addition to these advantages, the material is vermin proof and resistant to termites. Wide experience with the material in bus and railway car floors has shown that because this new lumber is a laminated product, expansion and contraction due to moisture are reduced to a minimum.

At the present time, a 3/8-inch Orham elm veneer, more enduring than oak, is used to face these planks which can be applied in 12-inch widths, six and eight feet long. This material can be laid over any type of wood underflooring, or can be put down in mastic at less than the cost of a good parquet or wood block flooring material.

Haskelite compound flooring is made in a 3/8-inch thickness, and is suitable for low cost housing projects, offices, stores as well as for private homes where the finest wide board hardwood floors are now generally specified. The laminations of this new flooring are bonded with phenolic resin glue which is proof against moisture. With its phenolic base, the glue is also a poison for rats and mice, should these rodents attempt to gnaw through the flooring. Where Haskelite laminated flooring is placed over a wood sub-flooring, a tongue and groove arrangement permits the carpenter to toe-nail the material to the sub-floor, just as he would in the case of a standard hardwood flooring material. A new type of tongue permits rapid nailing and eliminates the danger of the workman's hammer striking the face of the material. To assure a completely smooth surface, the ends of the planks are grooved so that a 1/4-inch metal strip can be inserted to form a spline with the planking that butts against it. Because the metal strip extends 1/8 of an inch into each plank it forms a seal that is both airtight and vermin proof. This arrangement also eliminates the need for face nailing at any point. The splining has a further advantage in that any settling of the building or contraction and expansion of joists leaves the floor surface even and free from squeaks.



COMPOUND plank flooring with details of side and end.



New Insulating Cement Roof

A SYSTEM of pouring a monolithic cement insulating roof without the use of forms has been developed by the Mikolite Division of Lehigh Portland Cement Co., 1100 S. Mill St.

(Continued to page 70)

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BRIXMENT

HAS HIGH

WATER-RETAINING

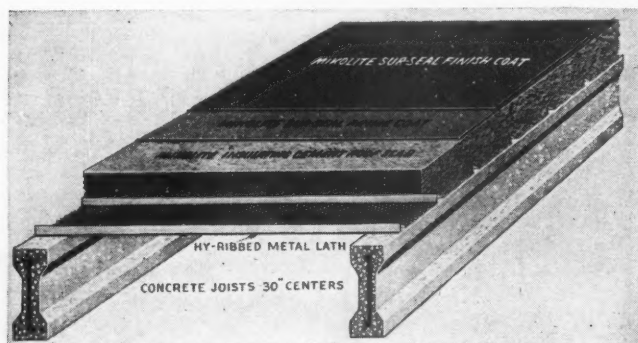
CAPACITY!

THE rate at which moisture is removed from the mortar by the suction of the brick has a marked effect on the bond between the brick and the mortar, and on the water-tightness of the wall. If the mortar is sucked dry too fast, it congeals immediately and the next course cannot be properly bedded. Furthermore, no water passes from this dry mortar into the brick. Therefore no bond is developed, and cracks may occur between the brick and the mortar, both in the bed and head joints. . . . *Brixment mortar has extremely high water-retaining capacity.* This keeps the brick from sucking the water out of Brixment mortar too fast, and prevents the mortar from losing its fine plasticity when spread out on the wall. This, in turn, permits a more complete bedding of the brick, an increased area of contact between brick and mortar, and a deeper penetration of the mortar into the pores of the brick. The result is a better bond, and a more water-tight wall. . . .

Louisville Cement Co., Incorporated, Louisville, Ky.

(Continued from page 68)

Kansas City, Kans. The roof is poured directly on steel lath, and requires only two coats of waterproofing. In tests, a load of 1,300 pounds was carried for 18 hours, no fracture or failure occurred, nor was bond between Mikolite plaster and concrete joist broken. The load per square for the tests was 530.61 pounds. Although the test slab, as illustrated, was poured on concrete joists, Mikolite insulating cement may be applied monolithically on wood or steel roof decks or on old built-up roofs. There is no expansion or contraction, and the material is fire- and decay-proof. Built-up felt or paper-finish surfaces can be used if preferred.



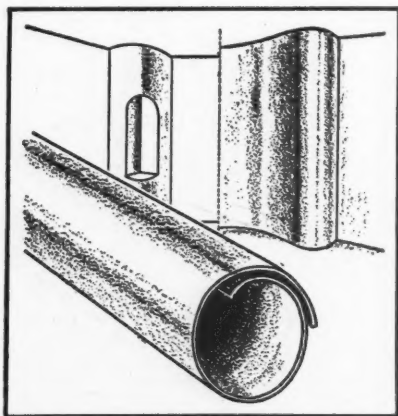
CONSTRUCTION drawing of Monolithic insulating roof.

Light Weight, "Easy-Curve" Wallboard

THE production of a new light weight and very flexible fiber wallboard has just been announced by The Upson Company, Lockport, N.Y. Bearing the trade name "Easy-Curve," this new board can be rolled with the grain to a diameter as small as six inches, or curved against the grain if necessary.

In addition to other uses, it will adequately meet certain needs in building construction for which thicker and stiffer materials are not suited; for example, as a facing for curved niches in walls, or for the curving surfaces of wall bookcases.

Panels are 4 feet wide by 10 feet long, permitting wide latitude in height dimensions for wall use. Notwithstanding this panel length, and the light weight board, a stock panel rolled to a diameter of 12 inches, then tied with string and stood on end, supported the combined weight (275 lbs.) of two men suspended from a board placed across the top of the rolled panel. "Easy-Curve" board is distinctively embossed on one side with a "pebbled" effect and smooth on the other side. Finish color is natural ivory. Surface takes either oil, Tempera paints or lacquers.



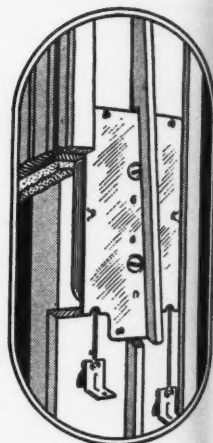
THE illustration at the left shows how "Easy-Curve" board can be used on curved surfaces; large roll indicates flexibility.

Single Sash Balance Unit for Double Hung Windows

DUPLEX, Inc., Los Angeles, is marketing an adjustable sash balance which takes care of both sash of a double hung window in one unit. This compact device is located just above center in a standard pulley stile on either the right or left side

of the window. To install, a rectangular opening $3\frac{1}{4}$ inches wide by $6\frac{1}{4}$ inches high is cut at the outside edge of the stile, the balance slipped into this space and fastened with screws. The back of the parting bead is cut out where it passes over the face of the balance and when installed only half of the small face plate is visible.

The four sizes in which the Duplex is made are adaptable to any sash weighing from 4 to 48 pounds. It is permanently lubricated and enclosed in a plaster-tight steel case. Finely tempered clock spring steel assures uniform tension. Airplane cable with patented winding device prevents breaking, doubling or sticking. By the simple twist of a screwdriver, the Duplex is adjusted to perfect balance.



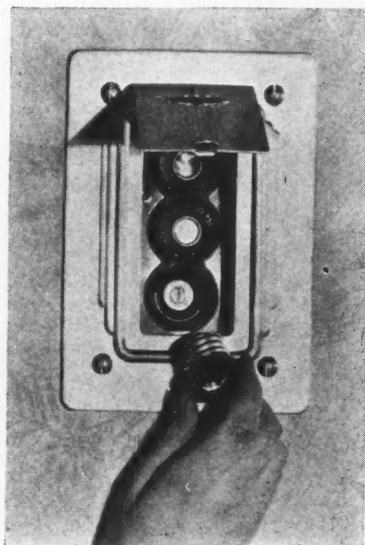
SASH balance in stile.

Tri-Branch Fuser for Safe, Low Cost Wiring

AS A new addition to their service control line, the "Tri-Branch Fuser" has been announced by Cutler-Hammer, Inc., Milwaukee, Wis. This device is a three plug fuse panel designed to serve three lighting or household appliance circuits, providing

an economical means of increasing the number of branch circuits essential to adequate wiring without sacrificing convenience or safety. It was developed primarily for the low cost home market.

A hinged door in the "airstyled" flush plate gives access to the fuse sockets which are adaptable to any type of approved plug fuse. Fuses are easy to change, and a dead-front plate of Bakelite provides protection from all live parts.



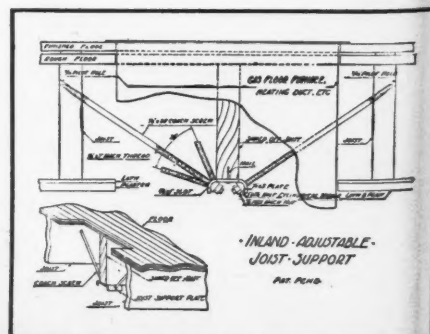
SAFETY and convenience fuse panel for low cost homes.

Adjustable Joist Support

A NEW and unique device for supporting joists, which must be sawed to permit installation of heating or air conditioning equipment, has been announced by Inland Mfg. Co., 1120 N. Cicero Ave., Chicago, and is known as the Inland adjustable joist support. This patented item provides full support for joists, to be quickly and easily installed, with a minimum of fuss, muss and bother. Only a 3 inch square of plaster need be removed for installation in a plastered ceiling.

(Continued to page 78)

LARGER detail shows installation method in using new adjustable joist support; small perspective shows it in place.



*Sign of the
Standard of
Comparison*



OAK & BEECH FLOORING
SOUTHERN HARDWOODS
ARKANSAS SOFT PINE

The versatility and volume of Bradley's production of items under these group classifications comprise an originating source of supply of unique advantage to contractors or builders. For here's a single major manufacturing operation which turns out, and distributes through local dealers everywhere, practically every lumber item necessary to building specifications which call for pedigreed quality. To protect your own work and reputation with trustworthy grade-marked quality, just say to your dealer, "This is a BRADLEY BRAND specification throughout."


BRADLEY BRAND Hardwood Flooring used with BRADLEY BRAND Hardwood Trim provides a complete installation of exceptional harmony in uniform color and texture.



BRADLEY LUMBER COMPANY of Arkansas
WARREN, ARKANSAS

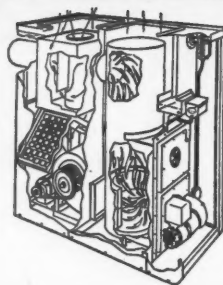


**NOW- LOW COST OIL HEAT
FOR THE SMALL HOME**



**ROUND OAK
"X-80"
AIR CONDITIONER**

Now, for the first time, Round Oak provides architects, builders and home owners with a low cost, oil fired winter Air Conditioning furnace for small homes—a unit so efficient and revolutionary that it is practical even in houses costing as little as \$4000. X-80 Air Conditioner is a special steel furnace designed as a complete unit with the famous Round Oak Contraflow burner and efficient circulating, purifying and humidifying units. It produces 80,000 BTU's per hour, which is sufficient for the average five to seven room house. The attractive cabinet is rugged 24 gauge steel with Hammerloid blue finish. Though low in price, X-80 is built to the rigid standards of the Round Oak Company—one of America's oldest manufacturers of heating equipment. Investigate this amazing unit before you buy or specify heating for any home. See your Round Oak dealer or mail coupon below for complete information.



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PURIFIES—CIRCULATES**



ROUND OAK

**STOVES • RANGES • FURNACES
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The Round Oak Company, Dowagiac, Mich., Dept. 108
Please send literature and complete information describing your
☐ X-80 AIR CONDITIONER, ☐ LARGER EQUIPMENT

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News of the Month

Building Activities and Meetings

Building Volume Reverses Season Trend in June and Continues Upward

BUILDING contracts awarded in the 37 eastern states during the month of June were larger in dollar volume than in any previous month of this year, according to F. W. Dodge Corporation. The June total of \$167,485,000 was 4 per cent ahead of the May 1938 figure, although 23 per cent behind June of last year.

Residential building contracts in June, amounting to \$85,682,000, were also larger than for any previous month this year, being 3 per cent ahead of May and only 8 per cent behind June of last year. Since June 1937 had the second largest residential contract volume of any month in 1937, the record of June 1938 indicates continuous, though gradual, upward progress. Out of fifteen districts included in F. W. Dodge Corporation's entire territory, five showed residential building contract increases over June of last year, four showed decreases of less than 5 per cent, two had decreases between 5 and 10 per cent, and only four had decreases amounting to more than 10 per cent.

Non-residential building contracts, amounting to \$81,803,000 in June, ran 5 per cent ahead of May, but 35 per cent behind June of last year.

Heavy engineering construction, of the public works and utilities classifications, which is expected to increase greatly in the coming months under the stimulus of the new federal spending program, amounted to only \$83,521,000 in June, being 32 per cent less than the May figure and 16 per cent under the figure for June of last year. The grand total of all building and engineering work recorded last month was \$251,006,000, which was down 11 per cent from the May figure and down 21 per cent from June of last year.

The accumulated total of building and engineering contracts for the first half of this year is \$1,294,272,000, being the highest for a similar period of any year since 1931, with the single exception of last year.

Real Estate Survey Shows Quick National Upturn Possible

THE thirty-first semi-annual survey of the real estate market made by the National Association of Real Estate Boards shows that today's home building rate in the most active sections of the country is five times the rate in less active sections. For the first five months of the current year the national rate has been only a little under the average rate for the year 1937, and meantime sales of new home sites, index of expected new building, have been taking place at a proportionately higher rate than prevailed on the average during 1937. Further findings of the survey indicate that wide variations in construction rate as between cities and as between geographical sections of the country are found for apartments as well as for single family dwellings; lack of confidence in the future is far and away the principal present deterrent to new home building, the survey finds. The two facts taken together indicate that upturn in national volume of residential construction could come rather quickly.

Detailed indications of the same general situation are:

1. Undersupply of single family dwellings exists in as much as 71 per cent of suburban areas and peripheral areas reporting, and undersupply of apartments in 47 per cent of these areas, while for the country as a whole an undersupply of dwellings is reported in 41 per cent of the cities, and an undersupply of apartments in 29 per cent of the cities. (The shortage at present is greatest in the smaller cities.)

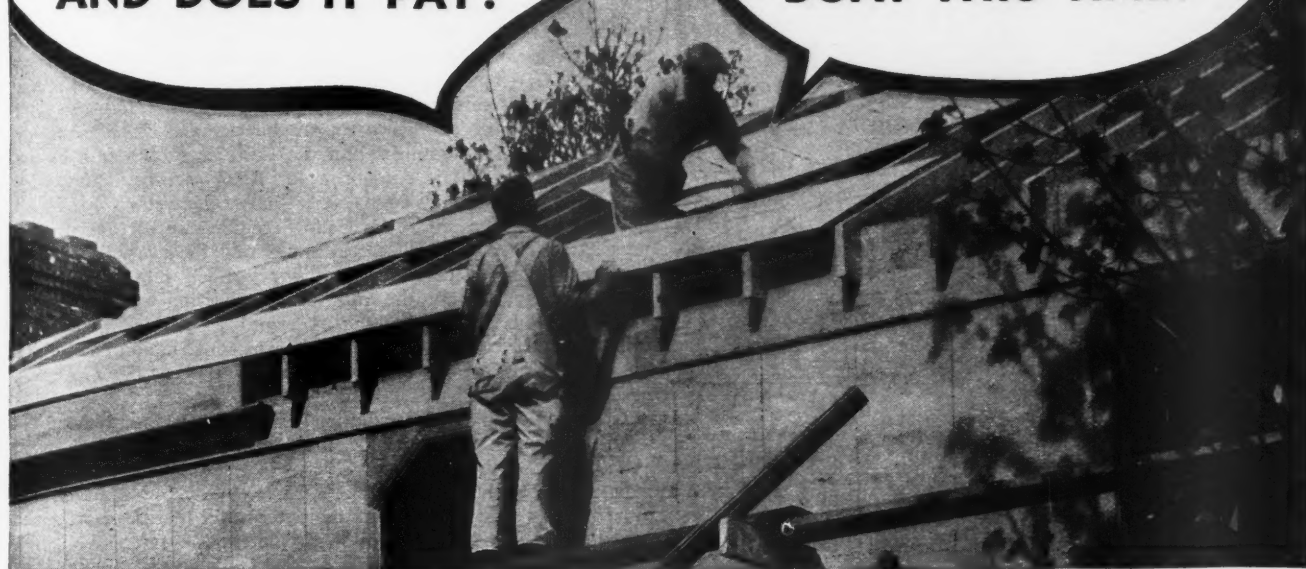
2. Residential rents have swung 5 or 10 per cent higher than a year ago in some cities, and swung 5 per cent and sometimes 10 per cent lower than they were a year ago in more cities, but the index figure for single family houses is only a fraction under what it was a year ago, and the index for apartment rents shows them to be slightly above the level of one year ago.

3. In the 244 cities (with combined population of 20,511,484)

(Continued to page 74)

NOW WE'RE GETTING
SMART—EH, BILL?
AND DOES IT PAY!

I'LL TELL THE WORLD
WE DIDN'T MISS THE
BOAT THIS TIME!



Alert builders everywhere are making better profits and building better homes with . . .

NEW TRADE MARK PLYSCORD SHEATHING!

REG. U. S. PAT. OFF. PEND.

You can save up to 25% on any sheathing job with PLYSCORD—the new Douglas Fir Plywood trade-marked sheathing. It's *real lumber*—cross-laminated into strong, light panels—and mill-scored for easy nailing, with guide lines on 16-inch centers. For easy fit, PLYSCORD panels come in two widths, 32" and 48", each a full 96" long; three thicknesses, $\frac{5}{8}$ ", $\frac{3}{4}$ " and $\frac{7}{8}$ ".

You'll save time, materials and labor when you use PLYSCORD. Many builders have cut application costs alone as much as 50%. These savings have been labora-

tory tested—and *proved* on job after job. Yet with these savings PLYSCORD gives six times more rigidity than ordinary horizontal sheathing—makes homes airtight, dust-proof, warmer.

Save on your next sheathing job with PLYSCORD. And remember—there's an economical grade of Douglas Fir Plywood for all subfloor, partition, wall paneling and interior finishing jobs, as well as hot-pressed, resin-bonded grades for permanent exterior use. Your lumber dealer can supply you. See him TODAY for prices.



Here's the famed guide line for easier, faster nailing—just one of Plyscord's many advantages.

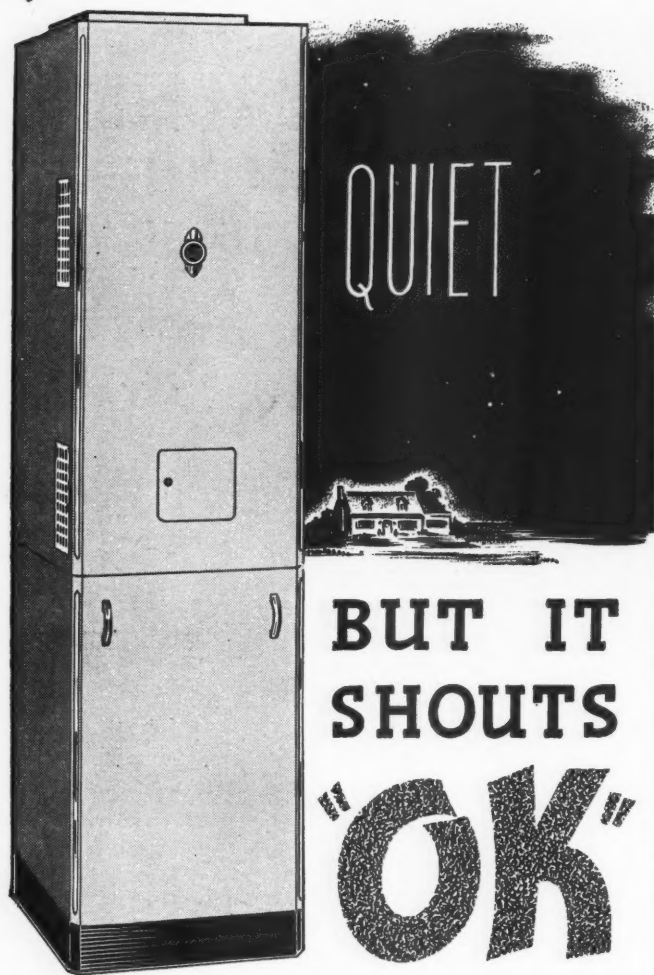
- QUICK—EASY NAILING
- SAVES TIME—LABOR
- TWO WIDTHS
- TAKES FEWER NAILS
- IMPROVED FACE
- GIVES GREATER COMFORT

DOUGLAS FIR PLYWOOD

Real Lumber
MADE LARGER, LIGHTER
SPLIT-PROOF
STRONGER

INFORMATION

Our well-equipped Technical Division offers co-operation in adapting Douglas Fir Plywood to special problems, and recommending the proper types and grades to produce the utmost serviceability and economy. Address DOUGLAS FIR PLYWOOD ASSOCIATION, Tacoma Building, Tacoma, Washington.



The Payne F.A.U. (Forced Air Unit) has clinched many a home sale for builders . . . has said "O.K. . . . buy it!" in unmistakable terms to many a home prospect.

This tremendously popular gas-fired Payne Unit heats in winter and ventilates in summer. It occupies only 4 square feet of floor space—and operates from kitchen, closet or service porch.

The F.A.U. streamlined Desert Tan cabinet contains all mechanism . . . harmonizes with any setting.

Investigate the Payne F.A.U. It gives you GAS—the ideal fuel—at its best. It is another superb product of America's most modern furnace plant.

Payne



FURNACE & SUPPLY CO., INC.
BEVERLY HILLS • CALIFORNIA

NEWS—

(Continued from page 72)

which attempt to estimate the amount of new building in their community the average amount of construction of single family dwellings in the period Jan. 1 to June 1 has been one house for every 1,118 persons, or one for every 279 urban families. The survey of a year ago showed the national average for the corresponding months of 1937 (the most active half of the year) to have been one single family house for every 900 persons or one for every 225 urban families.

4. Geographically, the white spot of dwelling construction is in the Southwest region, where the rate has been one new house for every 402 persons, or approximately one for every 100 families. The Southeast states are next with one dwelling for every 817 persons, or one for every 204 families. The Northwest region is third with one for every 1,175 persons, or one for every 294 families. On the other hand the rate in the Great Lakes region is one for every 2,097 persons. For cities of the Central Atlantic region it is one new dwelling for every 1,932 persons; for the South Central region one for every 1,295 persons; for the North Central states one for every 1,576 persons; for New England one for every 1,862 persons.

5. For apartments the rate of construction has been considerably slower. For the period Jan. 1 to June 1, in the 164 cities reporting on this matter, apartment construction has totaled an average rate of one new family unit for every 3,427 persons, or one unit for each 857 families.

Geographically the distribution of apartment construction is even more diverse than that of single family houses. The Central Atlantic states have the most active situation with one family unit for every 1,691 persons, or one for every 512 families, and this in spite of the fact that more than six-tenths of its cities reported "No apartment building whatever." Its active cities, taken by themselves, averaged one unit for every 297 families.

Home Site Purchases Ahead of Last Year

6. Purchase of home sites has gone on at approximately twice the rate of new home building. The relative rate is decidedly higher than last year. During 1937 it averaged about one and a half lots to each dwelling built.

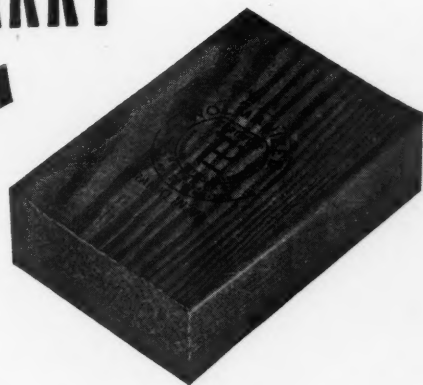
7. Single family dwelling rents have held stationary in 58 per cent of the cities, gone up in 18 per cent of them, gone down compared with a year ago in 24 per cent of the cities. In cities of the "up" group the change has been almost equally divided between a 5 and a 10 per cent rise. Half (49 per cent) of the cities show the rise as a 5 per cent rise, 43 per cent show it as a 10 per cent rise. Only 8 per cent show anything higher.

Apartment rents have held stationary in 60 per cent of cities, are up as compared with a year ago in 17 per cent of cities, down in 23 per cent. In the "up" group, half (51 per cent) had a 5 per cent rise, a third (37 per cent) had a 10 per cent rise, and an eighth (12 per cent) a still larger degree of rent change. In the "down" group, nearly two-thirds (61 per cent) of the cities had a 5 per cent drop, while only one-quarter (26 per cent) had a 10 per cent drop, one-eighth (13 per cent) had a heavier decline.

The index compiled for the Association from week-to-week reports from typical metropolitan centers shows dwelling rents at the end of the first five months of the year to be at 85.2 per cent of the 1926 level whereas at the same time a year ago they were at 86.1 per cent of that level. It shows apartment rents as still at 64.6 per cent of the 1926 level, as against 64 per cent a year ago.

8. Present actual interest rate at which first mortgage loans on new moderately priced homes are now most commonly being made is still 6 per cent in 53 per cent of the cities, but there is a measurable swing toward a lower rate. Six months ago 60 per cent of the cities showed the 6 per cent rate as commonest. A 5 per cent rate is checked in 53 per cent of the cities whereas less than 25 per cent so reported six months ago. A range as low as 4½ per cent exists in 3 per cent of the cities but only two cities (in the Great Lakes and Southwest regions) show this as their most common rate. The interest charge on the home buyer is still above 6 per cent in 8 per cent of the cities, but six months ago this was true in 12 per cent of them. Four cities in every hundred still check 7 per cent as commonest. Less than one in every hundred still check 8 per cent as commonest. One community has a prevailing rate of 8½ per cent.

CARRY



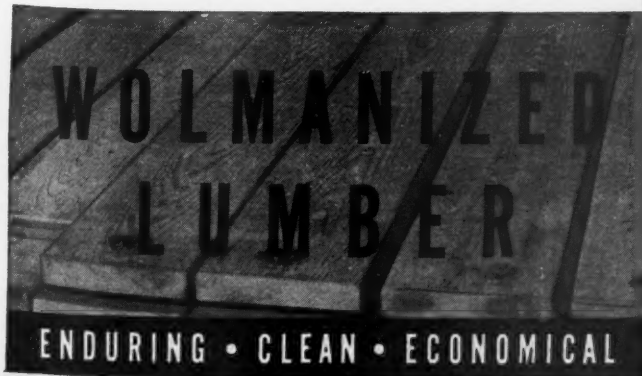
**in your pocket...it's clean,
and it makes better
construction**

Wolmanized Lumber* is absolutely clean and safe to handle, though it is thoroughly protected against decay and termites. It looks and feels like ordinary lumber.

That's your answer to the demand for a material which makes construction more permanent. Every carpenter can use it. It is clean, odorless, can be painted and stained. It ends the need for lumber substitutes. You can protect a whole house with it, at less than 2% addition to the total cost, by using it strategically at danger points such as sills, joists, subfloors. Banks and other financing institutions approve the added value.

Fourteen conveniently located plants now turn out Wolmanized Lumber. It can be obtained everywhere. Ask your lumber dealer, or write to us today for full information.
AMERICAN LUMBER & TREATING COMPANY, 1406 Old Colony Building, Chicago.

*Registered Trade-mark



BIGGEST NEWS IN SMALL MIXERS!

**End
Discharge
Trailer**



**JAEGER
"Speedster"**

• Hundreds of Pounds Lighter,
with Same AIR-COOLED Engine
that We Use on JAEGER Pumps

Contractors asked for it, now Jaeger has built it—a popular priced end-discharge 3 1/2 S trailer with the dependable air-cooled engine used on thousands of Jaeger pumps. Compact design saves hundreds of pounds—perfect balance—fast to trail on Timkens, pneumatics and springs—handier to spot and pour from end discharge—Jaeger quality thruout, including patented "V" Bottom Drum that doubles the mixing action.

**"UTILITY"
3 1/2 S**

**30% TO 40%
MORE YARDAGE
due to Measuring
Batch
Hopper!**



Load while you mix and discharge—fast as a power loader—mixes all the concrete most jobs can handle, at about 1/2 the cost of heavy 5S non-tilts.

We also build fast, popular priced end-discharge non-tilts in 75, 105, 145 sizes. Send for new Catalog SM-39.

**Get Our
New Low
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THE JAEGER MACHINE COMPANY

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Columbus, Ohio



Hank



Tells About A Higher Efficiency Oil Burning Boiler That COSTS LESS To Buy

YOU are dead right.
Our folks' special Biltin Oil Burning Boiler was
a bit higher priced than some.
But 'taint so no more.

It's right down stairs now along with any of 'em.
And even lower yet than some.
Now don't think fur even half a minute that we have
cut the price by that old trick of cutting the liver lights
out of its quality.

It's made exactly as it's allus been made.
But being as how, because of its 10 to 15% savings on
oil, we are selling such a heck of a lot more than we
used to, we are making more.
By making more it costs less to make 'em.
So it seems as how, 'long as we are making a saving,
it was only fair to pass that savings on to you.
So that's just what we have done.

Now you can buy this oil saving boiler at a saving
price to you.

Might be a smart thing to send for printed matter
about it, so you'll have some handy to give your
home owners.

Hank Hinds

Burnham Boiler Corporation

Manufacturers of Heating Equipment Since 1873
Irvington, New York Zanesville, Ohio
Export Department, 50 Church Street, New York

Burnham Boiler

Earnest Again Heads Anthracite Group

FRANK W. Earnest, Jr., was re-elected president of Anthracite Industries, Inc., at the Annual Meeting of the Board of Directors, it was announced at the organization's New York headquarters recently. Other officers re-elected were G. Gordon Cook, vice president and treasurer, and George W. Barnes, secretary.

In a statement issued after his re-election, Mr. Earnest said: "Anthracite Industries, Inc., is an organization sponsored by leading Pennsylvania hard coal producing companies, and organized two years ago to lead the industry in a united campaign for a larger share of the fuel market. According to the announcement made today, the policy of newspaper advertising, research, equipment development and dealer education will be continued, backed by a million dollar budget supplied by the subscribing members."

FRANK W. EARNEST



Temperature Records Help Attic Fan Sales

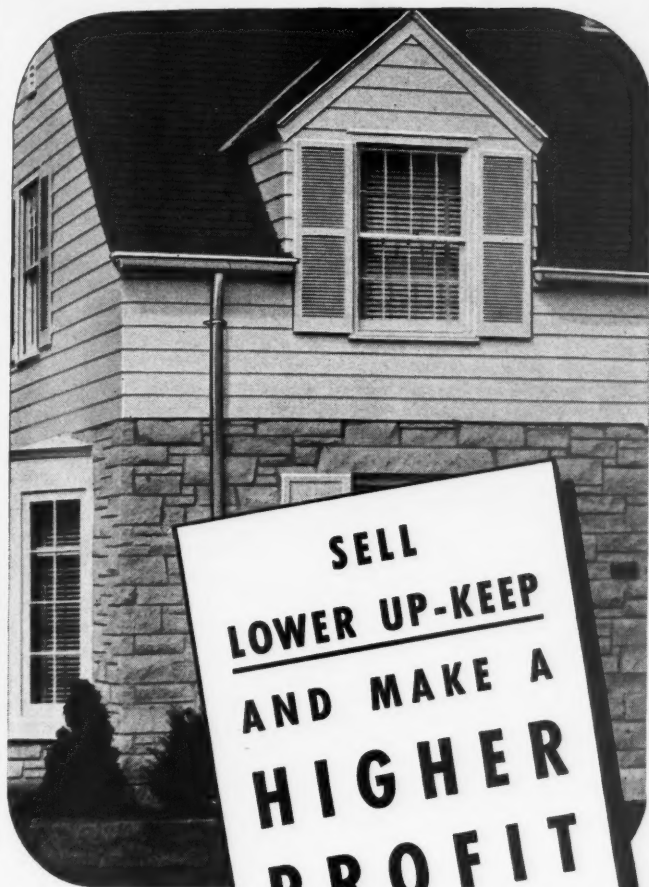
FEW people realize how much difference there is between day and night temperatures during summer months. Too often they think that summer nights are hot because they have been uncomfortable in houses that have stored up daytime heat. When they are shown that outside night air is 10 to 30 degrees cooler than daytime temperatures they begin to appreciate the possibilities of cooling their homes with attic fans. Contractors, home modernizers, and dealers who sell and install attic fans for home cooling make good use of records showing local daily high and low temperatures.

The Autovent Fan & Blower Co., 1809 Kostner Avenue, Chicago, has prepared a temperature table that should be in the sales kit of everyone who is interested in attic fans. The figures were compiled from U. S. Weather Bureau figures. They show the average monthly difference between daily high and low temperatures in a number of cities during July and August, 1937. The table follows:

City	July, 1937 Deg.	Aug., 1937 Deg.	City	July, 1937 Deg.	Aug., 1937 Deg.
Birmingham, Ala.	21.0	19.3	New Orleans, La.	14.7	14.5
Charlotte, N. C.	19.8	17.7	New York City, N. Y.	15.1	14.2
Cincinnati, Ohio	22.2	20.3	Norfolk, Va.	15.9	15.3
Dallas, Texas	18.6	19.1	Oklahoma City, Okla.	21.9	21.7
Des Moines, Iowa	22.3	21.3	Omaha, Nebr.	22.6	23.1
Detroit, Mich.	19.3	19.9	Philadelphia, Pa.	16.6	15.2
Fort Worth, Tex.	19.8	21.6	Richmond, Va.	18.3	17.5
Houston, Tex.	17.3	17.1	San Antonio, Tex.	20.3	22.1
Indianapolis, Ind.	19.7	19.7	St. Louis, Mo.	17.5	18.2
Louisville, Ky.	19.6	18.2	Washington, D. C.	18.2	16.9
Nashville, Tenn.	20.6	19.9			

Double Glazing Urged

"HHEAT Transfer Through Single and Double Glazing" was a timely subject discussed at the recent Hot Springs, Va., meeting of the American Society of Heating & Ventilating Engineers by Leighton Orr, research engineer. Conclusions: That double glazing reduces heat losses materially; that increasing the space between the lights up to $\frac{3}{8}$ inch shows a rapid decrease in the rate of heat transfer; that double glazing results in higher indoor glass surface temperatures as indicated by the absence of moisture or frost formation.



Home-owners who buy for permanent investment will listen eagerly to the money-saving argument of Armco Stainless Steel roof drainage.

There is no finer metal obtainable, and the slightly higher cost over ordinary metals is offset by lower up-keep cost.

Gutters and downspouts of Armco Stainless should last as long as the house. There is nothing to wear off or stain adjoining surfaces; for Armco Stainless is solid, corrosion-resisting metal all the way through.

Its strength is greater than any other metal used for roof drainage. Little likelihood of sagging.

Many home-owners will gladly pay more for the greater permanence of Armco Stainless Steel roof drainage.

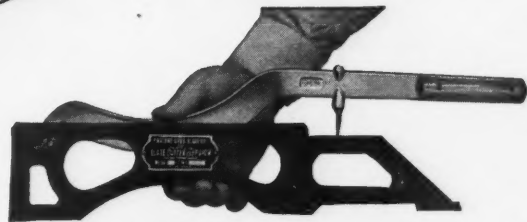
For additional information, see the Armco distributor, or write us direct. The American Rolling Mill Company, 2461 Curtis Street, Middletown, Ohio.

ARMCO
STAINLESS STEEL



PARSONS'

Slate and Asbestos Cutters



Portable... Efficient... Light Weight...
Low Priced

Pays for Itself on the First Job

CARPENTERS, Contractors, Roofers... In fact all mechanics... have use for Parsons' Slate and Asbestos Cutters.

Light in weight... only 5½ lbs. ... these cutters are portable and extremely simple in operation. Cut slate and asbestos shingles, quickly and easily to conform to all angles of Valleys, Hips, Starters, End Row Pieces, Fitting Around Chimneys, Dormers, Skylights, Towers and Windows.

Measures 18" long, 3½" high, 1" to 1½" wide. May be carried in tool kit and actual cutting done on roof or scaffold.

Slate Cutter takes all slate up to ¼" thick... Asbestos Cutter, all asbestos shingles and siding up to 3/16" thick.

Have malleable iron frame and cadmium plated, drop forged steel cutting blade carefully heat-treated.

Simple to Operate

Raise the cutting blade and place shingle all the way into throat of machine. Then with a short blow of the blade make a cut 3" or 4" long. The operation is repeated until the desired length cut has been made.

Cutters are designed with opening in front of frame so that they may be hooked on nail on roof or scaffold—or they may be fastened to a board if desired. Valuable time is saved in having this handy tool ready for use at all times.

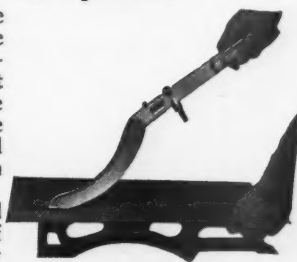
Prices boxed for shipment—

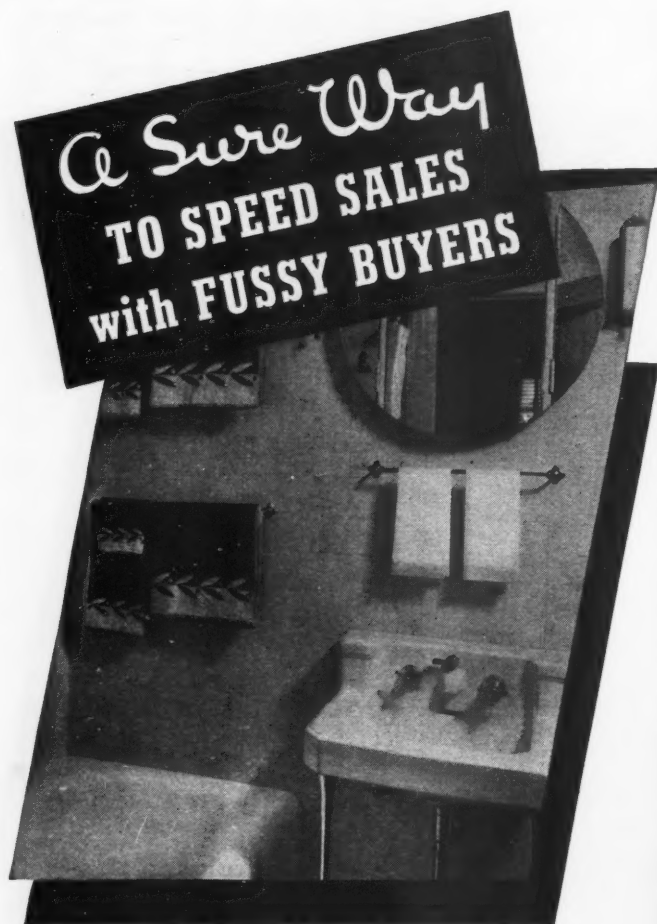
Slate Cutter.....\$ 9.75
Asbestos Cutter..... 10.50

Order yours today!

PARSONS BROS. SLATE CO.
PEN ARGYL, PA.

Miners and Manufacturers of All Slate Products Since 1892





MR. and Mrs. Prospect look over one of your jobs. They like it. The sale "looks good" . . . and then the Missus, who has been reading up and looking about . . . hesitates over those walls.

She's fussy. She wants "the last word" in construction . . . she wants *permanent, beautiful and easily cleaned walls* in the '38 style.

That's where colorful, successful Tile-Text, the new decorative wall material, welcomes her inspection and *helps your sale*. She readily admits the modernity of Tile-Text . . . instantly admires the exquisite colorings . . . visualizes how easily they can be kept clean.

For *new job* . . . or modernized . . . Tile-Text Walls—and Floors—offer low cost and high efficiency . . . and our nearest Distributor has a real fact story for you. Write for his name and a copy of the new folder, "Decorative Walls By Tile-Text."

TILE-TEXT Company CHICAGO HEIGHTS ILLINOIS

**OR YOU MIGHT CARE TO REPRESENT
US IN YOUR TERRITORY**

The Tile-Text Company
Chicago Heights, Illinois

If my territory is open, I would like to have complete information on the Tile-Text Dealer's proposition.

Name _____

Address _____

Adjustable Joist Support

(Continued from page 70)

The joist support consists of two heavy lag screws made of special metal, machine threaded for hexagonal nuts at the head, and joined by a metal plate, slotted to permit the screws to turn to any angle. One nail fastens this metal plate to the joist which is to be supported. Pilot holes are drilled in adjoining joists, with a wood drill. Lag screws are turned into these holes, washers and nuts are applied, and the joist is fully supported.

It is claimed that this device will support a dead weight of over a ton on a 2x6 joist. It can also be used where two or more joists are cut, and for supporting any joist that sags or is in a weakened condition.

Overhead Gas-Fired Winter Conditioner

A COMPLETE gas-fired heating system of revolutionary design has been put on the market by Gasconaire, Inc., 3255 Goldner Ave., Detroit, Mich. One of its principal features is its overhead installation, a factor that entirely eliminates the necessity of having the furnace on the floor. The Overhead Gasconaire is suspended from the basement ceiling, up and out of the way, allowing a person to walk under it. With no furnace on the floor, the basement floor and headroom can be utilized, permitting basement to be finished into a habitable room, unobstructed,



NEW overhead gas-fired heating system allows clear floor.

and as neat and attractive as any other room in the house.

With the furnace suspended from the ceiling, another marked advantage is that it is safe from flooded basements. Also, it is out of the way of tampering hands of children who might accidentally damage or deface a plant located on the floor or interfere with the proper operation of controls.

A favorable point to the contractor is that the Overhead Gasconaire can be installed before the basement floor is poured, providing heat to make the job easier and better when the concrete work is done in winter months.

The Overhead Gasconaire heats by means of warm air and operates automatically. The heated air is driven over the efficient heat-radiating unit to the registers, through ducts, by a direct-driven multi-speed blower. The return air passes through four filters before being again sent over the heating unit. As the blower has no pulley or belts, it is quite and flexible.

In addition to overhead installation in the basement, the Gasconaire can also be installed in homes without basements, either in the attic, beneath the floor, or in the utility room.

The OVERHEAD DOOR

WITH
Salt Spray Steel

TRACKS AND HARDWARE

— ADAPTABLE —

HOME GARAGE GREASING STATIONS
FACTORIES FIRE STATIONS
WAREHOUSES BOAT WELLS
SIMILAR BUILDINGS

THE DOOR WITH THE

MIRACLE WEDGE

BACKED BY OUR NATION-WIDE SALES INSTALLATION SERVICE

OVERHEAD DOOR CORPORATION

HARTFORD CITY, INDIANA, U. S. A.

CLIP THIS COUPON and MAIL NOW!

MADE IN ANY SIZE FOR ANY OPENING,
ELECTRIC OR HAND OPERATION.

Please send me literature and full information regarding your product.
I am interested in doors for the particular purpose as checked.

Name.....
Address.....
City..... State.....

Mail to: OVERHEAD DOOR CORPORATION, Hartford City, Indiana, U. S. A.

AB-8-38

PRIVATE GARAGE
PUBLIC GARAGE
WAREHOUSE
MANUFACTURING PLANT
STATION
WOOD DOORS
STEEL DOORS
FACTORY DOORS
OTHER BUILDINGS
ELECTRIC OPERATORS

TODAYS GREATEST MANUFACTURING OPPORTUNITY.....



LIGHT WEIGHT BIG SAVINGS

An improved design brick that saves 20% in weight and material in either faced or common. Reduces trucking costs, handles easier, lays faster, and builds a stronger wall.



Double and triple brick sizes further reduces costs. Permit hollow wall, fireproof masonry construction at cost level of frame.

OPPORTUNITY COMPLETE, READY-MADE FOR YOU IN YOUR LOCALITY—One that is proven—ready for you to cash in on the great building up-turn under way. It includes the essentials upon which sound and successful business enterprises are established.

SUPERIOR PRODUCT, LOW COST PRODUCTION—You will produce a material nearly 20% lighter in weight—A product in full range color or texture and capable of meeting all known building requirements—One accepted by Government and City Building Departments—Requiring 20% less material—Made by line-production machines.

EARNING POWER AND FUTURE—Present DUNBRIK-DUNSTONE Manufacturers already point the way for you. Some are selling output at 100% over cost. Others are getting as high as 80% of the brick business.


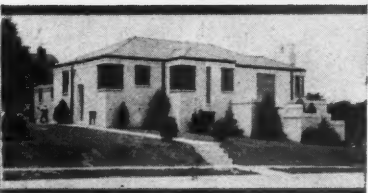
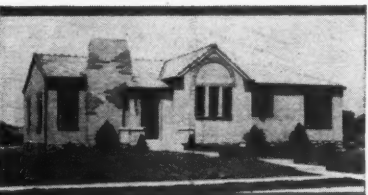

WE EQUIP YOU WITH LINE PRODUCTION MACHINERY—Large production—only one or two men. Equipment costs but fraction of other processes of equal capacity. Franchise granted covering your locality—protecting your market, business and future.

INVESTIGATE NOW—Send for "4 Keys to Success." It tells the complete story—How present manufacturers are making outstanding progress in this new industry—One that offers unlimited opportunity for growth, expansion and profit. Write today.



W. E. DUNN MFG. CO. 450 W. 24TH ST., HOLLAND, MICHIGAN

Max Risch Jr.
says, "**MESKER**
STEEL CASEMENTS
have certainly helped me
sell my houses"

And you can bet your bottom dollar that Max Risch, Jr. knows how to build, because every house he builds, sells itself.

In the last two years Mr. Risch has completely developed two subdivisions in suburban St. Louis and has built and sold over 175 low cost houses. Mr. Risch's secret of success is in knowing what people want in houses before he builds them.

That is why he has standardized 100% on Mesker Guildhall Casements. These low cost steel casements are equipped with Mesker Solid Bronze Feathertouch hardware that makes them work easier, close tighter, look better, and last longer than ordinary windows.

Write today for the big, free Mesker Steel Sash Handbook and let Mesker Guildhall Casements help sell your houses.

Mesker
SINCE 1879
MESKER BROS., 424 S. SEVENTH ST., ST. LOUIS, MO.

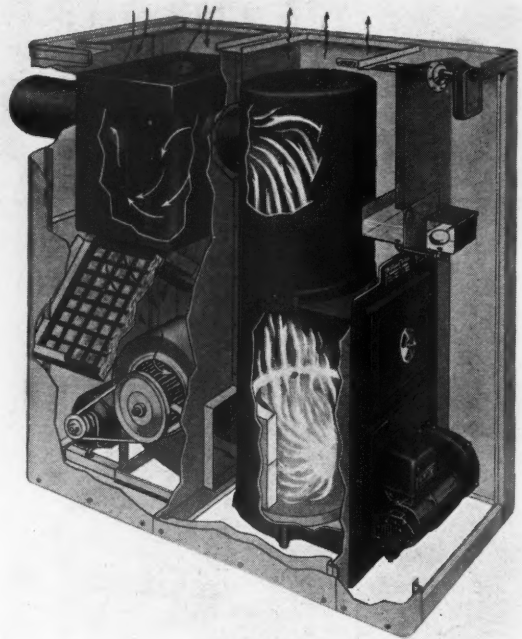
Oil-Fired Winter Conditioner

THE Round Oak Company, Dowagiac, Mich., manufacturer of heating equipment, has announced the X-80 air conditioner, a complete oil furnace and winter air conditioner for small homes. X-80 air conditioner is designed and priced to be practical in houses costing as little as \$4,000.

Contained within a single cabinet it delivers 80,000 BTU's per hour to provide ample heat for the average five to seven room house. In addition it performs the vital functions of humidification, circulation and filtration of the air.

The X-80 air conditioner was developed as a co-ordinated heating and air conditioning unit entirely within the engineering laboratories of the Round Oak Company. The steel furnace, especially designed for the burning of oil, is fed by the efficient Round Oak Contraflow oil burner. Humidifier is an improved pan and float type with automatic cutoff.

Return air from cold ducts is passed through spun glass filters into the silent multiblade fan by which it is driven around the heating unit to warm air ducts. Heavy gauge steel cabinet is beautifully finished in Hammerloid blue. It is rigid and vibrationless.

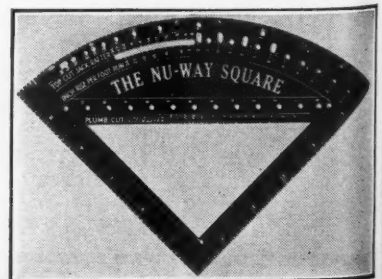


WINTER air conditioner for small and medium sized houses.

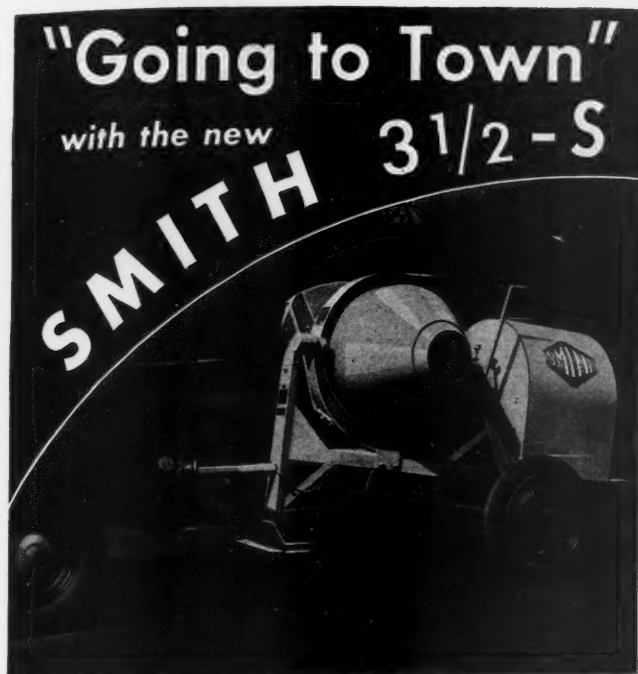
New Square Has Useful Applications

A NEW type of square designed especially for carpenters, tin-smiths, draftsmen, architects and others has recently been placed on the market by the Nu-Way Square Company of Beloit, Wis. Besides offering all the features of an ordinary square, it greatly simplifies the cutting of jack, hip and valley rafters for any pitch of roof. It gives the angle of plate cut for silo roofs.

The instrument also provides a quick practical means of drawing circles, parallel lines, triangles, pentagons, hexagons, and will divide a circle into any number of parts, 3 to 16. The square is available in three styles: etched nickel alloy steel, etched aluminum, and celluloid. A 20-page book of instructions accompanies each square.

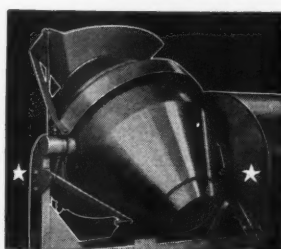


NEW Square for builders, architects and craftsmen.



You Get MORE for Your Money!

Contractors everywhere are "going to town" with the new Smith $3\frac{1}{2}$ -S Tilter. From actual job experiences they find the Smith turns out MORE concrete per day — and BETTER concrete — than any other small mixer. Built like the big Smith BOULDER DAM mixers! Handy feed chute loading—famous "End-to-Center" mixing action — fast "Tilt and Pour" discharge — pneumatic tired, roller bearing wheels. Yet Smith Tilters cost no more than most "tub" mixers.



The Mixer with the Short 40° Tilt as compared to the 180° Tilt required by any other tilting mixer. One quick short motion of the tilt lever, and in a few seconds the concrete is poured out.

★Note the handy discharge lever is interchangeable from left to right side of drum.

Every Smith a PROFIT-EARNER

Select any type of Smith Mixer with assurance it will lower your mixing costs and add to your profits. Write for literature.

The T. L. SMITH CO.
2849 N. 32nd Street
Milwaukee Wisconsin



THE BOULDER DAM MIXERS

A2329-1/2 (838)



• In this smart bathroom the tile-like walls are MASONITE PRESWOOD TEMPRTILE. Upper walls and ceiling, with unique indirect lighting arrangement over washstand and tub, are MASONITE TEMPERED PRESWOOD.

Practical bathroom planning calls for PRESWOOD TEMPRTILE

Beauty . . . durability . . . economy — these are the three requirements of an ideal material for bathroom walls and ceilings. And PRESWOOD TEMPRTILE and TEMPERED PRESWOOD answer "Here" on all three counts.

Their marble-smooth surface is a perfect base for many kinds of paint or enamel finish. They are moisture-resisting. And they are easy and inexpensive to install.



NEW! MASONITE METAL MOULDING

Masonite Corporation now introduces through its dealers an entirely new development in metal moulding. This cross-section shows the three types of clips now available to answer every construction problem. The clamp-on moulding is stainless steel.

A simple, single moulding with three ingenious metal clips provides edging strips, division strips, inside and outside corners. It will set a new standard in convenience, low cost and good looks. Mail the coupon.

Copyright 1938, Masonite Corporation



MASONITE

THE WONDER WOOD OF A THOUSAND USES
A MISSISSIPPI PRODUCT
SOLD BY LUMBER DEALERS EVERYWHERE

MASONITE CORPORATION, Dept. AB-8
111 W. Washington Street, Chicago, Ill.

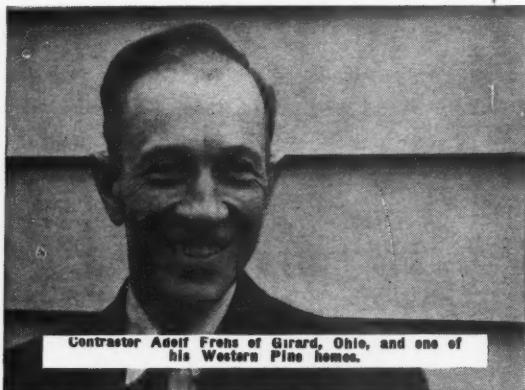
I'm interested in your new product, MASONITE METAL MOULDING. Please send me a FREE sample and complete information.

Name

Address

City State

"I always use



Contractor Adolf Frehs of Girard, Ohio, and one of his Western Pine homes.

***Western Pines**



for siding!"

AMONG Ohio's successful contractor-builders specializing in the small home field, is Adolf Frehs. As do contractors and builders the country over, he prefers Western Pines for sash, doors, window and door frames, interior and exterior trim, siding, mouldings, built-in fixtures . . . Mr. Frehs writes:

"I always use Western Pines for siding . . . They have proved satisfactory in every respect . . . I have never had a paint failure. Western Pines take paint and hold it . . ."

THE WESTERN PINES WILL
DO YOUR NEXT JOB BETTER
***TRY THEM

Specify Western Pines
Western Pine Association, Yeon Building, Portland, Oregon
* Ponderosa Pine * Sugar Pine
* Idaho White Pine

*These are the Western Pines

BOOKS on BUILDING

A REVIEW of current publications in the building field. For information about these books, write American Builder, Book Service Dept., 30 Church Street, New York City or the publishers.

THE KEY TO YOUR NEW HOME—by Lewis Storrs, Jr. 1938. 128 pages, illus., 9 3/4 x 13, cloth. Stackpole Sons, 250 Park Ave., New York City. \$3.00.

This is a source book with an entirely new approach for prospective home builders and for home owners who want to try remodeling. It considers in detail not only the exterior and the interior of houses, but the facilities for outdoor living and the relation of a house to its site. It is a picture book formed almost entirely of photographs and plans, with a practical descriptive text which has been cut to a necessary minimum.

The numerous items which must be considered in planning a house and which are so often neglected are treated by Mr. Storrs in detail—window treatment, doors, cornices, stairways, closets, etc. Examples of low, middle and high priced houses are given, all of them adaptations of styles that have become part of our American traditions. The book contains actual floor plans of 53 California houses, giving a working idea of space-saving, step-saving planning.

* * *

STEEL SQUARE POCKET BOOK—by Dwight L. Stoddard. 1937. 5th. 189 pages, 184 illus., 4x6, flexible. Scientific Book Corp., 15 E. 26th St., New York City. \$1.00.

This concise and handy little reference book illustrates and describes the best practical methods of using the carpenter's steel square in laying out all kinds of carpentry work, including common, hip or valley rafters for different shaped roofs, jack rafters and roofs of uneven pitch. Simple instructions are also given for obtaining the cuts for hoppers, towers, braces, trestles, stairs, bicycle tracks, etc., as well as for describing various figures such as octagons, circles, ellipses and ovals, and for solving many other knotty problems by the use of the steel square.

Following is a list of the contents by chapters: Description of the Steel Square; Practical Applications of the Square; Laying Out Different Figures by Using the Steel Square; How to Find Different Pitches and Degrees; Laying Out Common Rafters; Problems in Hipped Roofs; Octagonal, Hexagonal and Circular Roofs; Roofs of Uneven Pitch; Miscellaneous Roof Problems; Towers; Stair Problems; Siding and Shingling; Calculating by the Square; Miscellaneous Problems.

* * *

SHEET METAL WORK—by William Neubecker. 1938. 360 pages, 412 illus., 8 1/2 x 6, cloth. American Technical Society, Chicago. \$2.50.

This book is written in a clear and easy-to-understand manner by a man who has had many years of practical experience in sheet metal work of all types. It is ideal for the beginner as well as the most experienced sheet metal worker, and will also be valuable for school use and in school, public and industrial libraries. Contents: Tools and methods of obtaining patterns. Workshop problems of various types. Tables of weights of cast and wrought iron, copper, lead, brass, zinc, sheet copper, sheet zinc, flat rolled iron, square and round iron bars and angle and tee iron. U. S. standard gauge for sheet and plate iron and steel. Various problems for light gauge metal. Coppersmith's problems. Problems for heavy metal. Skylights. Roofing. Cornice work. Patterns for forced-air fittings. Problems in mensuration for sheet metal workers. Index.



Try this tested tonic

on FAILING SALES AND RENTALS



Turn basements into recreation rooms with colorful, low-cost floors of Armstrong's Asphalt Tile

WHEN sales and rentals lag, you can often pep them up by flooring the basements with gay, colorful asphalt tile and featuring them as game rooms. The cost need not be great—if you choose Armstrong's Asphalt Tile.

This low-cost moisture-resistant flooring is especially adapted for basement game rooms and laundries because asphalt tile is the only type of resilient flooring suitable for installation over concrete in direct contact with the ground, on or below grade. It is also ideal for kitchens, baths, and hallways in basementless houses.

There's plenty of style and beauty in the thirty-seven plain and marble colors of Armstrong's Asphalt Tile. And there's real selling power in the name *Armstrong*. National advertising has made this name stand for top quality in floors.

Let us tell you more about these modern floors—made by the makers of Armstrong's Linoleum. Learn how quickly and easily they can be installed, how time payments may be arranged if you wish. Write today for full information and your copy of *Gay Floors for Basement Playrooms*. Armstrong Cork Products Co., Building Materials Div., 1218 State St., Lancaster, Pa.



RUBBER TILE • LINOTILE (OIL-BONDED) • ASPHALT TILE

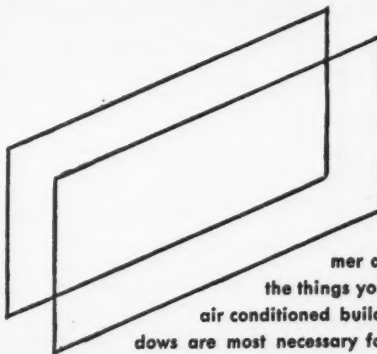
Armstrong's LINOLEUM
and RESILIENT, NON-CERAMIC TILES

CORK TILE • LINOWALL • ACOUSTICAL CEILINGS

Double Windows For AIR CONDITIONED BUILDINGS



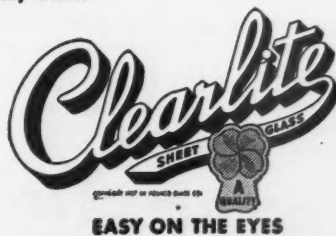
• Weather-stripping will decrease the infiltration loss of heat through the cracks, but it will not decrease the loss by radiation through the window glass. The easiest and most practical remedy is Double Windows. These will decrease the infiltration loss at least 50% and radiation through the glass 50% to 60%.



Air conditioning—controlled interior temperatures and humidity—elimination of dust, in Summer and Winter—these are the things your client expects in his air conditioned building and Double Windows are most necessary for the desired results.

The air space between the double windows helps to hold down condensation, keeps out dust and forms an excellent insulation against both heat and cold. Recommend Double Windows in the homes, office and public buildings and factories you design and specify Clearlite Quality Glass.

FOR THE GLASS SPECIFY



EASY ON THE EYES

FOURCO GLASS CO., CLARKSBURG, W. VA.
Branch Sales Offices: NEW YORK . . . CHICAGO . . . FT. SMITH, ARK.



**TAKE THE
SHORT CUT
TO SAWING PROFITS WITH
SKILSAW!**

Because it's 10 times faster... because it can do any kind of sawing work... because you can take it to the job, wherever it may be—SKILSAW will cut your sawing costs in half, increase your profits, turn more bids into actual jobs! It will make you more money on the first job... and all your jobs for years to come!

For 18 years, since we introduced the first portable electric handsaw, SKILSAW has been the choice of progressive builders everywhere. It has more power... more construction refinements... more sawing applications. Works from any light socket. Cuts wood, metal, stone, compositions. 9 Powerful Sizes.

Sold by leading distributors of mine, mill, hardware and contractors' supplies

SKILSAW, INC., Dept. A, 3314 Elston Ave., Chicago
214 E. 40th St., New York • 52 Brookline Ave., Boston
1429 Spring Garden, Philadelphia • 1253 S. Flower St., Los Angeles • 2065 Webster St., Oakland



Makes compound mitre-bevel cut on thirty 2x12 in. hip-pitch rafters in only 10 minutes!



Club Plan Sells Homes

(Continued from page 31)

who know from a practical, daily contact with construction *what the house will cost*. A half dozen or so experienced contractors do most of the work in Grand Boulevard Estates. They bring customers to the development, and in return the development turns over business to them.

The building materials and equipment exhibit is of great help to home owners. In the large center ballroom of the Grand Boulevard Estates clubhouse (which is also the office of the development) is maintained an exceptionally complete exhibit of home building methods and materials. A cross section of a well-built house has been erected by a local lumber dealer. Heating and plumbing equipment firms have exhibits, as well as manufacturers and local dealers in sheathing, siding, insulation, trim, roofing and building specialties.

Thousands of house plans have been accumulated in the library of the exhibit. These consist of architects' drawings, books of house plans, magazines and clippings and home suggestions from a multitude of sources. A prominent part of the library was a complete file of *American Builders*, much worn from constant use.

This building exhibit and library is housed in the club building, which is another feature of the development. To establish control over the type of person admitted to the community and maintain a high standard, the developers have selected the club plan. Prospective purchasers must be approved by a secret committee of the club members before final closing of the sale can be made. The club building also serves as a free community center. More important, it serves as a common meeting place for builders, prospective home builders, architects and building material men. It has become definitely a home building headquarters where people come for information of all kinds. Around the conference table there the builder, owner, architect and adviser of the Better Homes Department work out home building details, conduct negotiations and frequently close contracts.

The exhibit of materials and equipment is free to the manufacturers who participate, and in addition, extensive files of catalogs and literature on building products are on display and are distributed to interested persons. Frequently, printed invitations are sent out to mailing lists, inviting people to come out. The following form was used in one case:

ADMISSION TO

Building Materials Exhibit

SEE THE ACTUAL MATERIALS TO BE USED IN YOUR NEW HOME. ALSO, HOUSE PLANS AND LITERATURE. ON DISPLAY

Grand Boulevard Estates Clubhouse

11 A.M. to 9 P. M. DAILY

DEAN STREET
PHONE 4-7258

MODEL HOME UNDER CONSTRUCTION ACROSS FROM CLUBHOUSE
COURTESY OF BUILDING MATERIAL DEALERS, DESIGNERS AND MANUFACTURERS CO-OPERATING IN DISPLAY.

How does the Better Homes Department method affect the architect and the builder?

As for the architect, it brings him more work in the long run. After the important outline of the house and its plan have been worked out with the home owner and estimates made by a contractor to make sure that it falls within the budget, the preliminary sketches are turned over to a reputable architect who draws up detailed plans and specifications. He is not allowed to change the specifications in a way that will increase the cost.

As for the builder, he has an opportunity to sit in with the prospective customer at the time when he is deciding what house and what type of equipment and materials he wants and can afford. Because of his practical knowledge of building costs, his advice is highly important in the early planning stages. The home owner is guarded against the danger of setting his heart on Cadillac quality details when all he can afford is a "small car" style.

When the plans and specifications have been completed and

(Continued to page 86)

SO SIMPLE - you wonder why it wasn't done before!

One Floating Spring lifts both sides of Door
with exactly the same power at exactly the same time

NO SIDE-DRIFT . . . NO BINDING

This amazing new improvement in overhead type garage doors reduces installation time, ends all adjustment bothers, stops all side-drift and binding, and gives a new ease of operation which can only be described as "coasting." It is also much simpler and easier to install, requiring less headroom and less sideroom. All these advantages are made possible by the new patented exclusive feature known as . . .

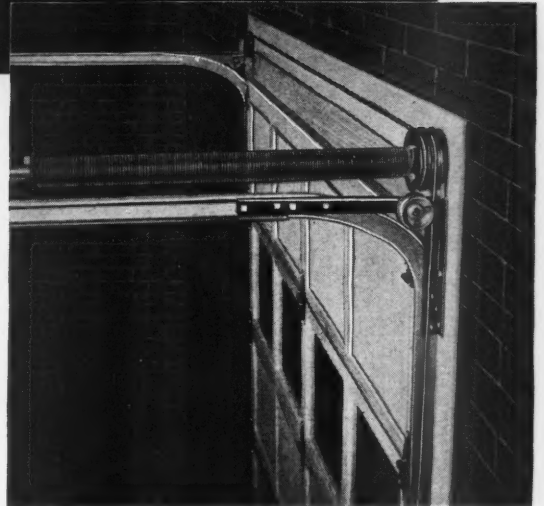
Rō-Tō Live Spring (Patented)

(BOTH ENDS WORK)

The Rō-Tō Live Spring is full floating. One end of it is attached to the rotating ball bearing shaft which carries the far sheave, or pulley. The other end of the spring is attached to the near sheave, or pulley, as shown in the illustration at right. Closing the door immediately starts both ends of the Rō-Tō Live Spring into operation. One pulley turning one way and the other pulley another way results in double-quick coiling of the spring, and double storage of lifting power. Now, when the door is opened, immediately this stored double power is transmitted, smoothly, evenly, quietly, to both ends of the door in a powerful balanced lift, which is always absolutely vertical . . . always free from side-drift, binding and sticking.

Get all the facts about this sensational new type door . . . already in use in more than 4,000 residence garages. Illustrated Folder and Price List Free on request.

Rowe Manufacturing Co. 769 Holton St. Galesburg, Ill., U.S.A.



Other Advantages of

Rō-WAY MODEL "J" DOOR

Tracks attach directly to jamb . . . no off-set brackets . . . lower headroom requirement . . . only 3% sideroom requirement . . . impossible to jump tracks, etc.

Other models of Rō-Way Doors are available for all sizes . . . all buildings . . . electrically operated if desired.



RELIABLE SCAFFOLD BRACKETS are saving MONEY for thousands of builders . . .

Besides being safer, stronger, and more dependable than wooden scaffolding, Reliable Scaffold Brackets cost less, are easier to erect and remove, and less bulky to handle. Savings are obvious. The brackets pay for themselves in a short time. Can be used on wood or stucco.

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RELIABLE
SCAFFOLDING BRACKETS

YOUR OPPORTUNITY STUCCO SPRAYING



THIS NEW MACHINE AND PROCESS fuses a water-proofed, plastic mixture on any masonry, old or new. It fills all cracks and can be applied in any thickness desired and in 30 beautiful colors and shades. Its permanence has been fully proven by over twelve years actual use under all conditions and every climate.

PROGRESSIVE BUILDERS ARE STRIVING for greater permanence, beauty and salability in their new construction at lower cost. Owners everywhere want to enhance present values and make their buildings more attractive and livable.

WITH COLORCRETE STUCCO SPRAYING you can supply both of these waiting markets and can offer permanent, colorful surfacing at amazingly low cost. Operators report costs of 2c and up per square foot and sell up to 7c. Some have paid for their equipment from first couple of jobs. Machine capacity up to 1,000 sq. ft. per hour.

GET THE FACTS. Write today for new Colorcrete Books. They tell the whole story, which may mean business independence for you.

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**makes highest quality concrete
joists — slabs — sills — lintels —
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This machine uses the new modern principle of **VIBRATION** which assures Super-Dense concrete Units. 240 ft. of Joists can be produced in one operation, at low labor cost.

The R & L Joist Machine is adaptable to the production of many standard and special concrete products.

A small investment enables you to meet the demand for complete fire proof construction in your locality.

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R & L CONCRETE MACHINERY CO.
KENDALLVILLE INDIANA
Without obligation, please send me information on your R & L Joist Machine.

Name

Address

Town..... State.....

Club Plan Sells Homes

(Continued from page 84)

agreed upon, the procedure varies according to the particular situation. Frequently, the builder who originally sat in on the preliminary work and made preliminary cost estimates will get the job without further ado. Sometimes one or two other reputable contractors may be invited to bid. In no case are plans and specifications indiscriminately passed around to a hoard of bidders in the hope that someone will make a mistake. Experience has amply proven that a low bid based on an error or a lack of knowledge of costs is an expensive mistake for everyone concerned. Where two or three contractors do bid on a job, they can be fairly sure that they are bidding against reputable firms like themselves whose labor costs are in the same class.

The result of this plan is that the home owner gets a well designed house built by a reputable contractor, and the total cost falls within his means.

The Better Homes Department has had a dramatic effect on the architecture and construction methods of the conservative town of Schenectady. New ideas for home building have had a tough time in this old, sedate community permeated with considerable Dutch conservatism. Many of the older builders have been more conservative than the public itself and would not adopt new ideas in either architecture or equipment, but the establishment of the Grand Boulevard's building library and exhibit and the modern, attractive homes that have been built as a result of the new ideas obtained there have had an effect on the entire community. Attractive Colonial homes now replace the nondescript, heavy-corniced structures that were formerly erected. Better architecture and better construction have been a direct outgrowth of the plan.

Ralph J. Blank, who was responsible for all this, is a man of energy and enthusiasm. He is conscientious and hard working. Do not for a moment think that the Better Homes Department idea can be carried out without spending long hours and hard work with troublesome details. Until last year Blank was vice president in charge of sales, and it was in this capacity that he set up the Better Homes Department. Upon the death of Sentaor Alfred H. Wagg last year, he became president of Wagg, Inc., which also operates brokerage, subdivision and real estate services in West Palm Beach, Fla.; Springfield, Mass.; Binghamton and Syracuse, N. Y. He also acts as real estate counselor and analyst, and has achieved notable results in taking over real estate developments and business properties in trouble and putting them on a successful financial basis.

* * *

Los Angeles' \$6,000,000 Apartment

(Continued from page 51)

the plan," says Mr. Griffith.

The project occupies a portion of a 350 acre tract owned by the Hostetter family for many generations. The area adjoining the newly-planned community is known as the Hostetter Business and Industrial District in which are located more than forty industrial plants, many of which are branches of national concerns.

Wyvernwood will offer residence units to families, exclusively — particularly to younger professional people, junior executives and business people who either have not had the opportunity of acquiring their own homes or who, for business or economic reasons, do not desire to buy.

The project plans to afford accommodations at rentals equal to or lower than those now prevailing in the district, yet, in addition, will provide families with the most modern facilities, superior in quality to any that now exist or have ever existed in the community or in the entire city.

In spite of the large number of residential buildings, practically fifty per cent of the acreage will be devoted to gardens and landscaping. The buildings will not face directly on streets, but will have their outlook on long, wide planted areas extending over a width of 150 feet and varying in length from 500 to 2,000 feet. All utilities are to be underground, thus affording unbroken views and a freedom from unsightly poles and wires.

EDWARDS TROFSEAM STEEL ROOFING

Outsells them All

Because this outfit Proves that it is Storm-proof



Get this outfit. Set it up. Fill the box with water and show your customer that TROFSEAM sheds water like a duck's back. Even if a wind storm could force water through the outer crimps the inner trough would carry every drop of it away. This is costly construction but TROFSEAM gives it at no higher price than what you are now paying for ordinary commonplace steel roofing.

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LESS WEIGHT — END DISCHARGE
COMPACT — AIR-COOLED ENGINE
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**STEEL and ALLIED
PRODUCTS for the
CONTRACTOR**

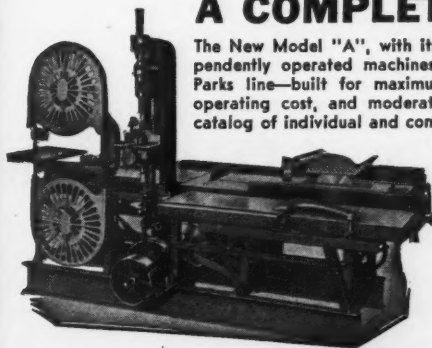
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of everything the contractor needs, from Reinforcing Bars to Stainless Steel—Foundation Bolts to Structural, is carried in conveniently located Ryerson stocks. Experienced crews—complete equipment and special dispatching methods assure accurate cutting or forming to specifications and delivery according to schedules. When you need steel, order direct from Ryerson. No order is too small for personal attention or too large for Immediate Shipment. Joseph T. Ryerson & Son, Inc.
Plants at: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Philadelphia, Buffalo, Boston, Jersey City.

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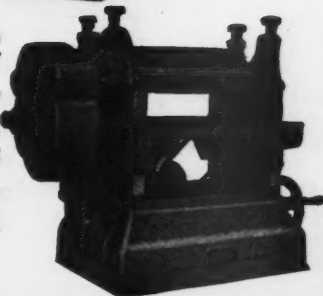
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The New Model "A", with its 8 full-sized, independently operated machines, is typical of the Parks line—built for maximum service, at low operating cost, and moderate price. Send for catalog of individual and combination machines.



**MODEL "A"
PLANING MILL
SPECIAL**

Rip and cross-cut saw,
22" band saw, 12" jointer, tenoner, hollow chisel, mortiser and borer, swing cut off saw, reversible spindle shaper and sand disc.



12" BENCH PLANER

Planes material up to 12" wide x 4" thick. Maximum cut 1/8". Takes pieces as short as 6" and as thin as 1/16". Bearings high-grade New Departure ball bearings. Chip breaker and pressure bar completely guard the head and feed rolls. Power: 1/2 to 2 H.P. Weight 300 lbs.

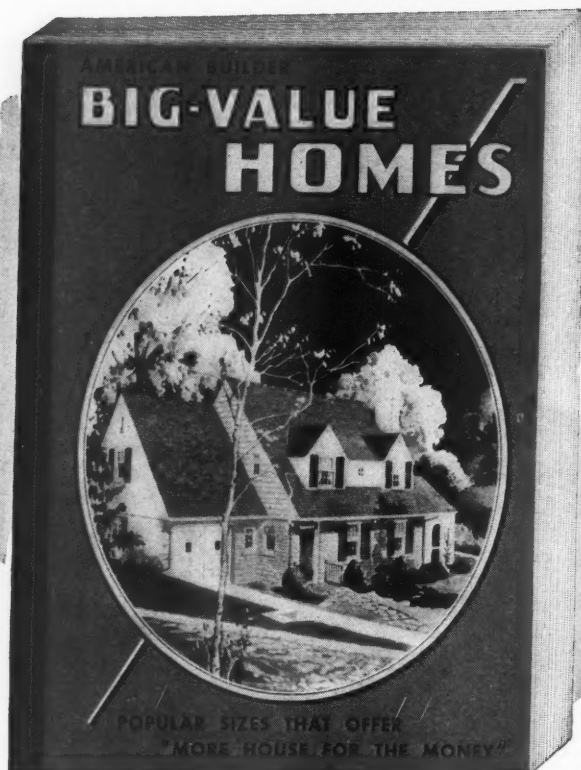


Good Woodworking Machines Since 1887

THE PARKS WOODWORKING MACHINE CO.
Dept. BL-8 1524 Knowlton Street Cincinnati, Ohio

No Such Homes as These

were possible ten years ago. For they embody ideas in planning, construction, comforts and conveniences that were then unborn. Moreover, the homes of 1926-29, such as they were, cost 25% to 40% more than comparable homes of today, even with all the latter's superior new features making for more charm and livability.



172 pages, 8½" x 11½"—More than 300 Illustrations, Exteriors, Interiors, Construction Details, etc.—12 pages in 4 colors—Cloth-strip reinforced attractive heavy enameled paper binding.

Just Such Homes as These

must be built today, if they are to meet today's demands for the multitude of the latest improvements in architectural design, building methods and materials, and modern home equipment, in fulfillment of the industry's assurance that it can deliver today **MORE HOME FOR THE MONEY** than ever before, in this or any other country.

WITHIN the 172 pages of this incomparable Plan Book are assembled descriptions and illustrations of ninety outstanding homes of today's vintage. Each with exterior views and large and well dimensioned floor plans. Many with beautiful interior views, detailed specifications, materials lists and cost breakdowns. Extra features include articles demonstrating that never did the dollar buy so much home as it does today.

Outline of Chapter Two—"Big-Value Small Houses"

Typical of the big value being put into today's homes through better planning, more efficient construction and greatly lowered financing costs.

Modernistic Manor from Oklahoma

attracting wide attention for its compact inexpensive type of structure and its unusual second-floor flat-roof deck.

Old World Style

Concrete Masonry Chappaqua house of delightful French architectural lines.

6-Room Colonials

in the Cape Cod Development—three of them, possessing attractive Colonial quality, inside and out.

Apartment Cottage

built in Berwyn, Ill., with full page of drawings showing some attractive paneling, and interesting views of dinette and kitchen.

Little but Livable

4 and 5-room Cottages, admirably meeting the low cost house demand.

More for the Money— Devon Cottage of 1938

Well laid out and well equipped. Forced filtered warm air is provided by heating plant in alcove off kitchen.

Attractive Period-Styled Small Homes

in Lindop's Broadview Development, featuring modern planning. With a deadly parallel listing of 15 superior features not possessed by a comparable 1926 home, including a 16% less cost for the 1938 5-room bungalow.

Master Built Plywood House

in Detroit that is a perfect gem in careful planning, pleasing appearance and good construction.

White Brick 5-Room Bungalow

one of whose distinctive features is a charming arched opening to dinette.

\$1,000 More House for the Money

E. E. Olsen Construction Co., of Pittsburgh builds basementless "Utility" houses which allow a cost reduction of this amount. The cost breakdown shows it!

New England Basementless House

that costs only \$5 per month to heat.

Additional details on next page

To get a copy of "American Builder Big-Value Homes" absolutely FREE with your American Builder subscription or renewal order, accompanied by \$2 for one year, \$3 for two years, or \$4 for three years,

(Continued from preceding page)

Other Homes in this Chapter include

Country Colonial with 1st floor bedrooms.
Home with four bedrooms and study.
A Detroit Model House "that grows," ideal for the small income group.
Unusually fetching small Connecticut house built at an angle.

Outline of Chapter Four "Larger Homes with Added Value"

Examples of good Exterior Styling, Practical Planning and Construction Methods, Gathered from Many States.

Shingled Home From the Northwest

Illustrated in four colors, typical of the fine homes for which Seattle is famous.

California-Monterey Style Hillside House

Entrance on upper floor. Sleeping rooms on lower level. Wide overhanging balconies. Barbeque fireplace in forecourt.

California Farmhouse Style

With charming views of living and breakfast rooms—a study in modern furnishings!

50% Better Values than in 1926

Harold W. Cheel says of the two homes presented—one of them with white columns and broad porch, the other in the smart Regency style. The tremendous strides made in home building since 1926 are nowhere better illustrated than in these "Cheelcroft" homes.

Among the Pines at Orlando

Rambling layout, full of rustic Florida charm.

The Hardwood Model Home

at Memphis, modified Colonial type, modern in both style and arrangement.

Country Homestead with City Conveniences

with specifications that present interesting details of construction.

French Norman at Modern Cost

with lot of architectural appeal and greatest possible use of floor space.

Attractive Georgian Home on Wooded Site

For outdoor living there's a porch off living and dining rooms, with sun-deck above it.

Among other Homes in this section are:

A bunch of Mott Bros.' Homes, showing 33% greater value than in 1926.
New Jersey Colonial of Simple Charm.
Five Exterior Style Variations of Harmon's "Chatham" Plan.
An Old Brick Home in Virginia.
Colonial with 2-story portico.
Kansas Home designed for entertaining.
Another of the popular Cheelcroft Cottages.

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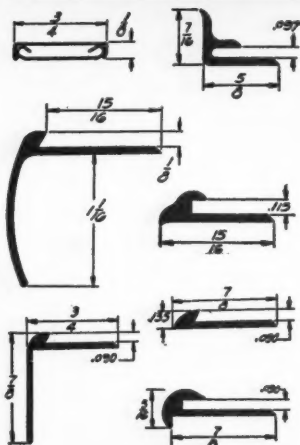
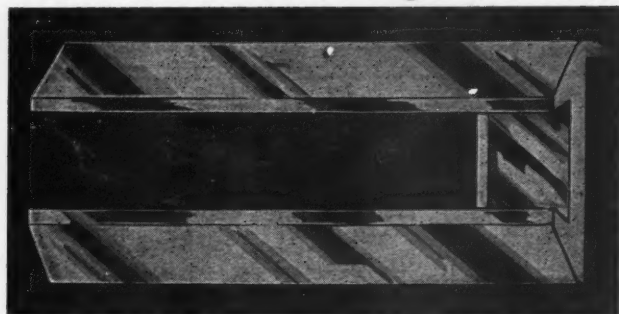
The Other Four Chapters

1. "VALUE IN TODAY'S HOMES."
3. "LOW COST HOMES THAT PAY THEIR WAY."
5. "MODERNE HOMES FOR ECONOMY."
6. "SAVINGS IN GROUP HOME BUILDING AND APARTMENT HOUSES."

Additional Features

Characterful Interior Invites Admiration.
As to Working Plans.
Home or Stocks—Which?
Pictograph Analysis of Increase in Home Values.
Reduced Financing Costs Leave More Money for Actual Home Construction.
Striking View of an Entrance to a Modern Home.
Scientific Methods Reduce Home Costs.
Perfecting a Home Plan over a period of three years.
"Hospitality Welcomes Here."
How to Build to Save Fuel.
Common Sense in Kitchen Planning.
How to Build Modern Coal Bins and Double Bunks.
Camera Study of the construction methods of one of the nation's most successful builders.
New Style for Old Apartments.
Gorgeous View of an Outdoor Living Room.
Two Basement Transformations that are no less than amazing.
FHA Amended Rules Help Toward Low Cost Homes.
Ten Favorable Factors in Holding Down Home Costs.

Decorative Mouldings of Metal



Luxuriant, flashing, bright metal, with gay, colorful inserts of linoleum and special beadings. Ideal for use with modern wall and floor covering materials.

Here is a complete line, to meet every architectural requirement. Ideal for bathrooms, kitchens, lobbies, restaurants, clubs, bars, recreation rooms, theatres, beauty salons, shops and rest rooms.

Write for Catalog

Shows actual installations, types of mouldings and hundreds of sectional views. Now available to architects, contractors and distributors of building materials.

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These American floor sanders are making big money for a lot of men (we'll send you their names and pictures). There is no reason in the world why you shouldn't also be making this big money.

BE OWN BOSS

You already know a lot about the building game and this is a real chance to get into something for yourself and be your own boss.

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American floor sanders are easy to run. There is no hand scraping the American way and no skill required—in fact, inside of a few hours you can run one as well as an "old timer."

American Sanders are easy to take from job to job and you don't need any helpers. Sometime during every man's life he has to decide whether to go ahead and "be somebody" or stay in the same old rut.

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Find out more about this interesting money-making work today by signing and sending in the coupon below for free details.

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Gentlemen:

Tell me more about this money-making business without cost or obligation to me. Send prices and free details.

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LETTERS from Readers on All Subjects

Facts, opinions and advice
welcomed here

Likes "TruCost" Estimating Series

Dickinson, N.D.

To the Editor:

I want to commend you for publishing the articles by A. W. Holt. It's my opinion that Mr. Holt has done more to modernize the estimating and merchandising of lumber by the retail yards than any other man.

If you keep him hammering away at us, we may all get modernized and out of our hundred year rut.

HEATON LUMBER COMPANY,
By A. D. Heaton.

How to Spend an Evening at Home

Fresno, Calif.

To the Editor:

I have been reading, with a good deal of interest, A. W. Holt's articles on "TruCost Estimating." We get the *Builder* at our office but I want it at home where I can put on my slippers, load the old pipe and get all I can out of these articles.

I prepare a good many delivery lists for contractors and others and early this year figured out "per square" costs on our type of house construction. Since preparing these costs we have the new FHA minimum construction rules and details, so I will have to revamp my figures to some extent.

It occurs to me that Mr. Holt might connect his plan of estimating with FHA construction to advantage. Our minimums are those prevailing in the territory tributary to San Francisco.

Kindly enter my subscription and mail to me at my home address; also invoice for subscription. Can you supply me with all issues covering "TruCost" estimating?

HAL BALDWIN.

"—A very good unit quantity survey"

Elyria, O.

To the Editor:

I wish to congratulate you on the *TruCost* estimating service which was started in the May issue of the *American Builder* by A. W. Holt.

This is a very good unit quantity survey and I believe it will be appreciated by contractors. Is it possible for you to furnish the contractors with forms of this quantity survey as shown in the May *American Builder*, with a column for pricing the material separate and a column for pricing the labor separate?

I hope you will print the forms so that the contractors can buy them from you.

L. P. KAISER, President,
L. P. Kaiser Co., General Contractors and Builders.

A Time Saver

Fall River, Mass.

To the Editor:

I would like to express my appreciation for your new *TruCost* Estimating Data. It is going to save many hours in my estimating.

R. D. HOLMES,
Construction Engineer and Builder.

The Lost Is Found (A Long Way from Home)

Leipsic, O.

To the Editor:

Last summer (1937) when we were considering building, an *American Builder* was handed us and in it we found a house like the enclosed picture—or very similar. We liked this house so

(Continued to page 92)

MASTER WEATHERSTRIPS

Keep Bad Weather
OUT
And Good Weather
IN!

Air conditioning and insulation have created an entirely new need for MASTER Weatherstrips. In addition to keeping out bad weather, it is necessary to retain the healthful indoor atmosphere created by modern air conditioning plants. MASTER Weatherstrips will greatly increase the efficiency and economy of all air conditioning units.

Installed by reliable dealers in all parts of the country.

Agents: Write for catalog
and agency plan

MASTER METAL STRIP SERVICE

1720 North Kilbourn Ave., Chicago, Ill.

ROOF FRAMING TABLES

For Steel Square and Protractor

By Ira S. Griffith



These tables provide in the most condensed form the necessary information for framing the various members of square cornered and octagonal roofs, both in degrees and by means of the steel square. The tables are read through slits in the celluloid cover and the tabular card is operated in a manner similar to using the slide rule. A booklet gives direc-

tions for using the tables and furnishes example problems for laying out the miter cut of a plate, and common, hip, valley and jack rafters, with either steel square or protractor. With these tables you can save the time necessary to figure layouts and cuts.

4 1/2 x 5 inches, with 8-page booklet, in leather slip case, \$1.00.

Money Back if Not Satisfactory

Book Department

American Builder and Building Age

30 Church Street, New York

SAVE TIME AND LABOR WITH MALL COST CUTTING ELECTRIC TOOLS!



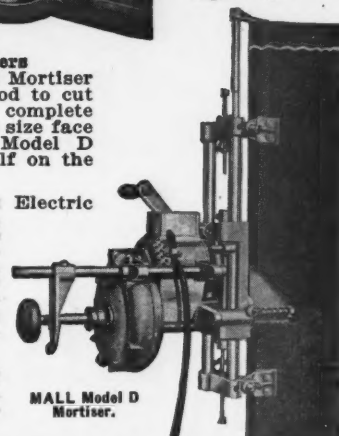
MALL Model IA
Electric Handsaw.
Cutting Capacity
2 3/4"

MALL Handsaws
MALL Handsaws are available in many models for straight and bevel cuts. These powerful saws cut **CLEANLY, EVENLY,** and **ACCURATELY** ten times faster than a man can do the same work with an ordinary handsaw. Can be furnished in 2", 2 3/4", 3", 3 1/2", 4", and 4 1/2" capacities.

MALL Door Mortisers
The MALL Model D Lock Mortiser provides the fastest method to cut mortises. It cuts the complete mortise, including the full size face plate recess. A MALL Model D mortiser will pay for itself on the first 350 to 400 doors.

Other MALL products are: Electric door and surface planes, portable sanders, concrete vibrators, concrete surfacers, terrazzo grinders, electric hammers and saw tables. Detailed illustrated bulletins and prices will be furnished upon request.

Why not inquire today? These tools will help complete your jobs faster with increased profit.



MALL Model D
Mortiser.

TOOLS FOR EVERY CONTRACT

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WHAT! No Exhaust Fan in the Kitchen?



THE DE LUXE

A powerful exhaust fan for large kitchens—features three-speed control, easy cleaning and special quiet blades.



THE STANDARD

Ideal for average size home, easy to install even over cabinets or where wall space is limited. Excellent for recreation rooms, too!



THE MASTER

For small kitchens and apartments or where price counts, it's the Master! Also, the perfect ventilator for bathrooms and laundry rooms!

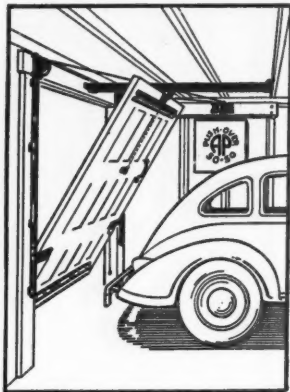
VICTOR in-bilt VENTILATORS

Women are demanding electric ventilation today! They want their homes to be free of cooking odors, greasy fumes and smoke.

That's why it's smart to install a Victor In-Bilt in every house you build—it packs more sales punch per dollar than any other feature you can use. Remember too, Victor offers you the only complete Ventilator line—a model for every size of home or apartment and for any type of construction. Write for free data book today!

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For Your Work on GARAGES



Allith 50-50 "Push-Over" is the most practical solution ever found for garage doors; easy to install on repair jobs or new work, and it is priced to sell. Are you getting your share of this business?

Write us for our Allith Catalog showing complete line of door hardware. Do it now!

ALLITH

50-50 "PUSH-OVER"

ALLITH-PROUTY, Inc.,

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Increase Your PROFITS On EVERY Job

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SPEED-O-LITE

EVERY DAY that you use less efficient sanding equipment you are paying for this profit-building light-weight (80 lbs.) machine without having it.

The SPEED-O-LITE will increase your profits on every job and quickly pay for itself in savings on time, sandpaper, labor and current. So simple any inexperienced operator can use it successfully.

- ★ Sands right up to the quarter-round.
- ★ Leaves a Ballroom finish on every floor.
- ★ Picks up all dirt and dust.
- ★ Cuts faster—works easier.
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★ OUR 40 YEARS' EXPERIENCE GUARANTEES YOU SATISFACTION



NO DIRT
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FOR 1 YEAR
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FLOOR-MACHINERY CO., INC.
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Send full details of our 5-DAY FREE TRIAL SPEED-O-LITE OFFER. Also tell me how I can own it. ☐ Interested in time payments.

NAME

ADDRESS

CITY

STATE

LETTERS DEPT.

(Continued from page 90)

much we considered building it, and handed it to our architect who was to make a few changes. He both mutilated the original plan and lost it all; which caused us so much delay we didn't build last season.

We have looked for this house and for magazine plans of it since, and only recently took the enclosed picture of a house at Upper Arlington, Ohio, which very much resembles the house you illustrated in *American Builder*.

Is there any way in which I may get the magazine showing these plans? The interior just as it was shown is most important.

MRS. L. L. PERRY.

EDITOR'S NOTE: The original house mentioned in Mrs. Perry's letter was built in Evanston, Ill., from plans by Irvin A. Blietz, builder. It was reproduced as the front cover design of *American Builder*, May, 1937, and was also fully detailed in the same issue. The snapshot of the Upper Arlington, O., copy of this house (not illustrated) shows it to be an almost exact duplicate. This design has apparently found high favor in Ohio.

Specializing on Cottages

Dallas, Texas.

To the Editor:

We are always looking for new ideas in exteriors for cottages but it looks like all the trade magazines give most of their space to the higher priced places. Yet 69 per cent, according to your own figures in a recent article, of the people in the United States buy homes under \$5,000.00.

We specialize on nothing but cottages and have built lots of them; but it looks like the fellow who builds the two-story not only gets all the publicity but all the assistance.

Perhaps if you featured each month five and six-room cottages you might reach a lot of small builders who might get help from a publication like yours.

Dallas Housing Company, by Chas. A. Myers.

Endorses "High Cost" Campaign

Hyattsville, Maryland.

To the Editor:

We are interested in and heartily endorse the cooperative publicity program set forth in the June issue of the *American Builder* under the title "How Much is 'High Cost' Building Propaganda Costing You?" If you will send them, or have them sent, we will display to good advantage, in our waiting room, a copy or proof of each of the seven display ads. shown and referred to.

Supplementary to the campaign you inaugurated and are sponsoring, the cooperation with The Producers' Council, Inc., relative to "The Truth About Home Building Costs," we would suggest that you reproduce the slogan at the masthead of your publication on page 35 of the June issue ("More House for the Money TODAY") in sticker form and furnish same to builders at cost (or cost plus) for use on envelopes and mailing pieces. It could be reduced slightly for this purpose, and would help drive home at a glance the message you are conveying to the public.

PHILLIPS H. CLARKE COMPANY,
(Signed) J. I. Johnson.

Interested in Prefabricated Wall Materials

Green Bay, Wis.

To the Editor:

We have been reading about prefabricated homes in your magazine from time to time and wonder if you could tell us where to get more definite information; that is, regarding prices and styles. Naturally what we want is something that can be faced with brick or stone on the outside and steel on the inside. If you have this data on hand or can tell us where to write, we would appreciate it very much.

This opportunity of praising your magazine cannot be overlooked so both my dad and I wish to say that we enjoy your magazine so much that we can hardly wait from month to month for it. The articles, plans and information are just what any builder needs to keep him abreast of the times.

F. J. DeCOSTER & SON, Contractors,
By L. A. DeCoster.

WE'LL SHOW YOU HOW DEWALT SAVES YOU MONEY!

Wm. A. Worral, Contractor, writes—My first job on which I used the DeWalt was building 5 houses. Just a year before I built 5 identical houses, cutting all material by hand. I kept accurate cost records on both jobs and my records disclose a "Saving of \$550.00." Any wonder I am enthusiastic—paid for its cost on my first job.



EASY TO OWN—Here is a popular priced model you can buy on Easy Payment terms. It has all the flexibility and accuracy of heavier DeWalts. Ideal because easily portable right to the job. Quickly financed through the savings effected.

MAKE A DATE NOW AND LEARN HOW

America's leading builders save 20 to 30%. We'll show you how right on your job—no obligation. Write today.

DE WALT
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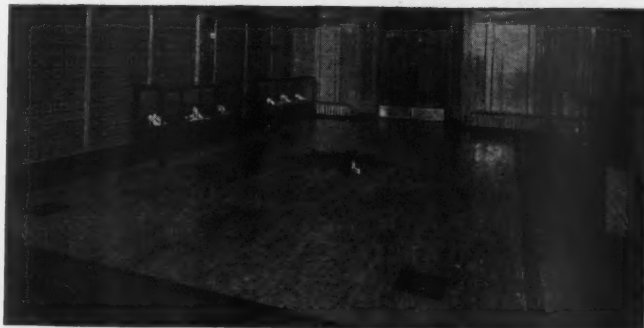
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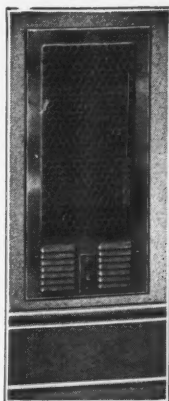


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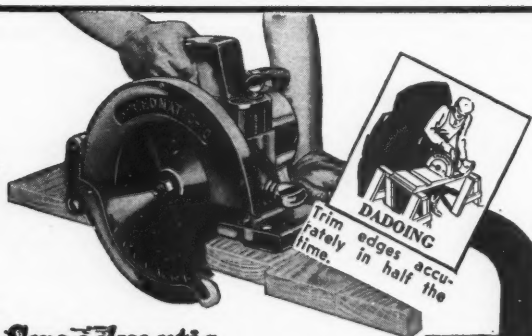
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Window Conditioning Urged

(Continued from page 56)

shut off or set very low because owners found that otherwise there was too much condensation on windows. The heating units were evidently capable of supplying enough moisture to maintain the manufacturers' claims of 40 or 45 per cent humidity during cold weather, if it were not for the rapid dehumidification taking place at the windows.

"The chief difference between old and new construction practices affecting the present problem," reported Dr. Browne, "is the reduction in the frequency of renewal of the air from the outside. In the effort to accomplish more comfortable and more economical heating, houses today are built with much tighter sidewalls and roofs and much more general use of weather-stripping and insulation. The effect of reducing the amount of infiltration has been to exchange air less frequently, with the result that a given amount of moisture evaporated within the house during the day effects a higher relative humidity.

"During cold weather much higher humidities can be maintained without danger of condensation if storm windows are used. From this point of view, weather-stripping is in no sense a substitute for storm windows; on the contrary, it tends to favor condensation. Weather-stripping reduces infiltration of cold air at the windows, aiding to that extent in keeping the house warm, but it does not reduce the loss of heat by conduction through glass.

"Both from the standpoint of economy in heating and prevention of condensation, storm windows should be installed before weather-stripping, especially where an effort is made to carry higher humidities during cold weather.

"With storm windows provided, relative humidities indoors during cold weather can be maintained at a reasonable level but, if on the coldest days there is still a tendency for moisture or frost to condense on the glass, steps should be taken to evaporate less water in the house or the heating plant, or to admit more air from outside by opening windows until the glass can be kept clear of condensation.

"I noticed numerous cases of early failure of paint and putty, and on one of the houses with wood siding the paint was peeling so badly that repainting was to be done immediately.

"These failures of paint show clearly that condensation occurs within the sidewalls of houses as well as on the windows and that there is danger of much more serious difficulties in the future if steps are not taken to control the movement of moisture. The difficulties with bluestain and paint, which are serious enough in themselves, should be regarded as warnings of faulty conditions that should be corrected to safeguard the structural framework of the house itself and to maintain effectiveness of the insulation.

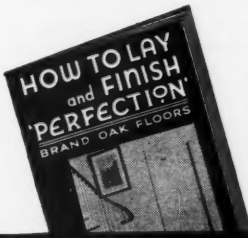
"From the point of view of protecting the woodwork of the windows, by far the most helpful procedure that can be adopted is the installation of storm windows on all windows and doors during cold weather. If it is worth while to add four inches of good insulation to what was formerly considered satisfactory sidewall construction, it is certainly absurd to leave a considerable portion of the sidewall area with only a single pane of glass between the rooms and the outside.

"It is strongly recommended that storm windows be provided and that steps be taken to show architects, builders and the public why they are needed on future buildings."

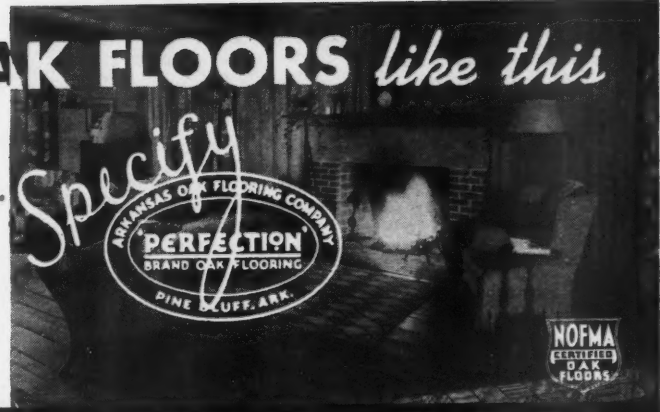


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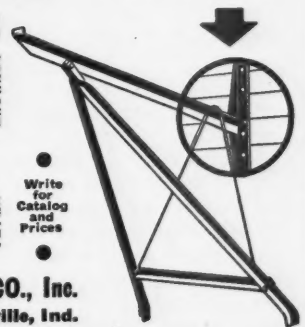
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194—"Termite Protection with Copper Shields"—A new handbook covering the construction of termite shields from sheet copper consists of 12 pages and 4 loose blueprint sheets of details. This is issued primarily for architects, engineers and builders and sheet metal contractors.—**COPPER AND BRASS RESEARCH ASSN.**, 420 Lexington Ave., New York City.

195—Selectron—Interesting new data sheets give information regarding this most modern method of opening garage doors and gates. Selectron installed on your car operates at the touch of a finger.—**SELECTRON CO., Inc.**, 5525 Sunset Blvd., Los Angeles.

196—"Gravity Ash-Removal Methods"—A new 8-page bulletin presenting a number of tested methods for convenient collection of ashes from heaters, furnaces, water heaters, cooking ranges and fireplaces. It describes the number of pit and container arrangements underneath Anthracite burning heaters, the ash falling by gravity and collecting for periods up to one year without attention.—**ANTHRACITE INDUSTRIES INC.**, Chrysler Bldg., New York City.

197—Sasgen Derricks—A new handy catalog and price list of the well known Sasgen hand powered derricks, also power material elevators and hoists, and derrick and hoist parts has been issued. This tabulates all these important supplies, giving all essential information complete with prices.—**SASGEN DERRICK CO.**, 3101 Grand Ave., Chicago, Ill.

198—New International Diesel Crawler Tractor—An attractive brochure announces the new International Diesel TD-65 TracTracTor. It is operated by a 6-cylinder engine and has a maximum of 70 drawbar horsepower.—**INTERNATIONAL HARVESTER CO.**, 180 N. Michigan Ave., Chicago.

199—Iron Fireman's New Oil Burner—An attractive broadside announces and illustrates the new oil burner offered by the manufacturers of the well known Iron Fireman coal stoker. This broadside in two colors illustrates the mechanism of the oil burner, shows how it is installed, and illustrates its advantages in the modern home.—**IRON FIREMAN MFG. CO.**, Portland, Ore., and Cleveland, Ohio.

200—Elkay Cabinets and Showers—Two attractive folders illustrate the Elkay Sturdibilt cabinets and kitchen sink combinations and the Elkay line of shower bath cabinets. Each includes scheduled sizes and illustrates correct installation methods. Valuable suggestions for modern style effects are included.—**ELKAY MFG. CO.**, 4704 W. Arthington St., Chicago.

201—New Duplex Adjustable Sash Balance—"You May Expect Children" is the rather intriguing title of an architecturally correct folder illustrating the Duplex balance, showing how it is installed and adjusted. "You may expect children to open windows with ease" when fitted with these balances is the full story suggested on the title. The Duplex balance is one of those clever California ideas which the rest of the country seems so willing to adopt.—**DUPLEX INCORPORATED**, Los Angeles, Calif.

202—New Andersen Windows—A new 16-page catalog, "Make Comfort and Beauty a Reality in Your Home," illustrates the Andersen line of wood windows, including the casement, Narroline double-hung and basement windows. A companion catalog of 20 pages features the Andersen complete window unit. Both are exceptionally well illustrated with photographs and working drawings and diagrams showing stock sizes available.—**ANDERSEN CORP.**, Bayport, Minn.

203—The Overhead Gasconaire—"What! A Furnace on the Basement Ceiling?" is the challenging lead of a folder in two colors presenting an entirely new idea in basement heating plants. Here is a new gas-heating and air conditioning plant suspended from the basement ceiling, up and out of the way.—**GASCONAIRE, Inc.**, 3255 Goldner Ave., Detroit, Mich.

204—Bryant Home Heaters—"Homes That Say Come In" entitles an attractive 16-page portfolio of low-cost homes and the new small size Bryant gas heater especially designed for their economical heating. The famous Certigrade home at Washington, as well as the eight Washington "Laboratory Community" homes, are included in this collection, since several of these homes are Bryant gas heated.—**THE BRYANT HEATER CO.**, 17825 St. Clair Ave., Cleveland, Ohio.

205—Parsons Bros. Roofing Slate—Complete information regarding the lines of roofing slate from the famous Bangor slate district at Pen Argyl, Pa., is now available upon request from—**PARSONS BROS. SLATE CO.**, Pen Argyl, Pa.

206—Allmetal Snap Lock Mouldings—A new 8-page data sheet on nosings, bindings, edgings and ornamental metal moulds for modernistic effects using wall-board and other flat sheet finish is now offered. Large detail drawings make clear exactly how these parts are applied and used.—**ALLMETAL WEATHER-STRIP CO.**, 229 W. Illinois St., Chicago.

207—Square Heater from Round Oak—The March of Time is well illustrated in a very impressive new air conditioning loose-leaf de luxe brochure which shows that the good old "Round Oak" line is no longer round but square, and now burns gas in place of the well remembered old Round Oak chunks. Of course, many of the old favorite round cast iron furnaces for burning solid fuel are still in demand, and included as a second part of this new manual which features the gas-burning and oil-burning air conditioners.—**ROUND OAK CO.**, Dowagiac, Mich.

208—Nailing Bulletin—Lumber Letter No. 7 of the California Redwood Assn. is devoted to nailing. It shows a detailed table of the kinds and quantities of nails required, the holding power of nails, tells how to nail siding and how best to prevent splitting. Special advice is also submitted on the kind of nails to use to prevent corrosion, how to lessen discoloration around nails, the use of putty, both before painting and in natural finishes.—**CALIFORNIA REDWOOD ASSN.**, 405 Montgomery St., San Francisco.

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(August, 1938)

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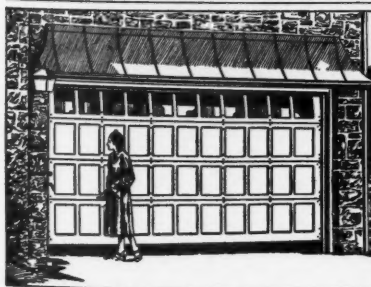


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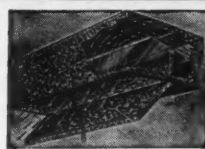
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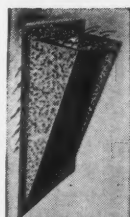
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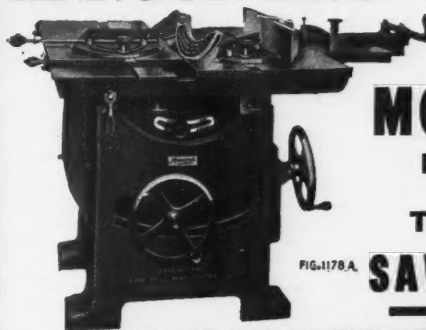
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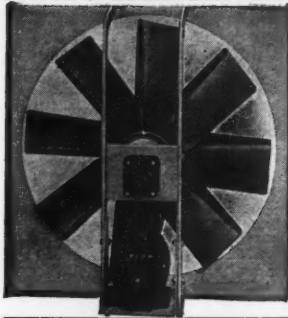
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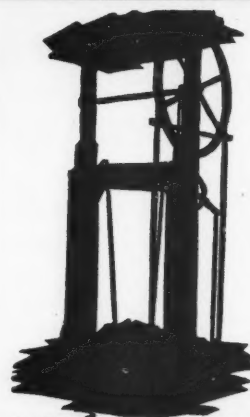
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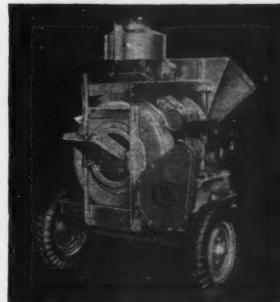
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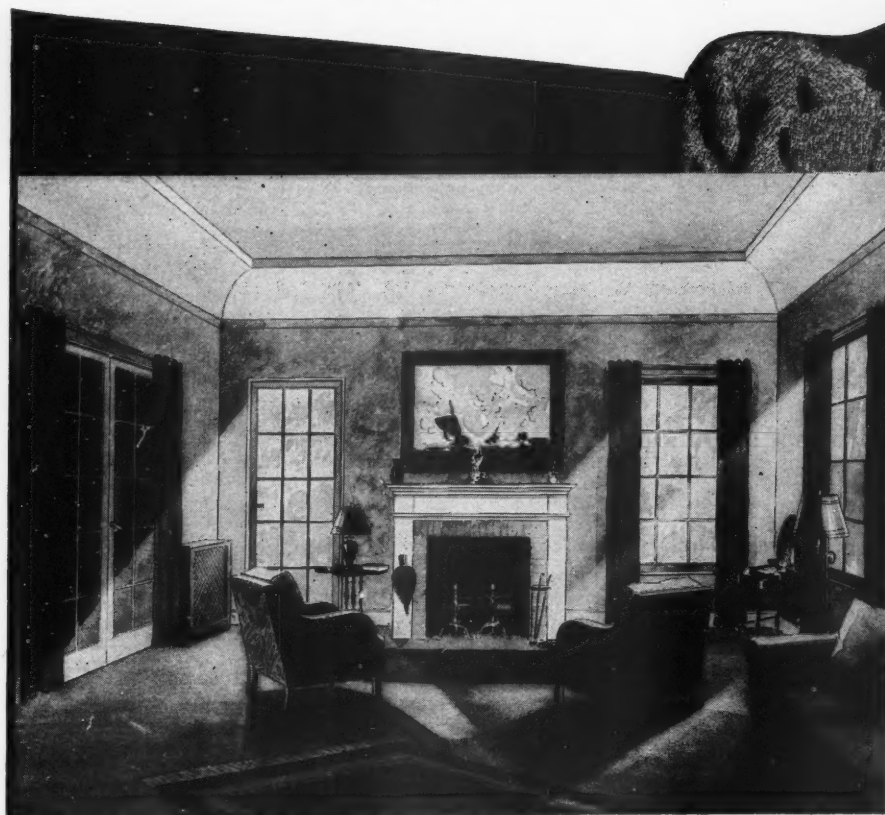
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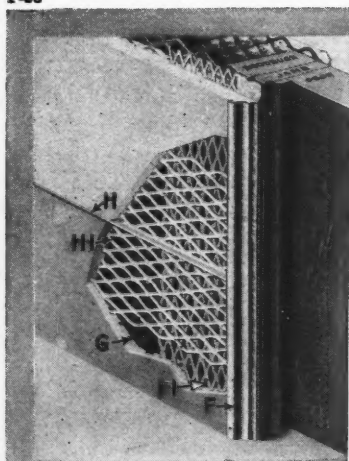
NOTICE TO ADVERTISERS—Forms for the September number of the American Builder and Building Age will close promptly on August 15. New copy, changes, order for omissions of advertisements must reach our business office, 105 West Adams St., Chicago, not later than the above date. If new copy is not received by the 20th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts. AMERICAN BUILDER AND BUILDING AGE.



Prospects say —
*"I like this house —
 it seems so roomy."*

Homes are easier to sell — *with* **MILCOR Metal Casing**

F-38



F—The exposed moulding of
 Milcor Expansion Casing
 F-1—Patented Expanded Metal
 Wing
 G—Milcor Netmesh Metal Lath
 H—Milcor Expansion Base
 Screed
 H-1—Base Screed Expanded
 Metal Wing
 Patent Nos. 1,743,800 — 1,419,232
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You find that prospective owners like the spaciousness that Milcor Expansion Door and Window Casings give to a small room — with 1" or less of exposure. They appreciate the simple beauty that harmonizes with modern interior decoration — that is so easy to keep clean without frequent varnishing and painting . . . There are no hair-line cracks to become dirt-clogged — no warping or shrinking that causes cold air seepage — because the expanded metal wing is an integral part of the casing, providing a secure plaster bond . . . The final cost is actually less than that of a well-finished job with other materials. Your homes are easier to sell — your services in demand — when you build with Milcor Expansion Casings.

Write for the Milcor Metal Trim Manual, today.

Unit of the
MILCOR System of Fireproof
 Construction

MILCOR STEEL COMPANY
 MILWAUKEE, WISCONSIN CANTON, OHIO
 Chicago, Ill. Kansas City, Mo. La Crosse, Wis.
 Atlanta, Ga. New York, N. Y.

DEALER DISTRIBUTION SECTION

In The Spotlight—EDMUND A. ROY

CHICOPEE, Mass., is the home of E. A. Roy, president of the Massachusetts Retail Lumber Dealers Association. He is not only an experienced merchandiser of wholesale and retail building materials but also, at the time of the great Connecticut River flood of March, 1936, proved himself an expert log-riding lumber-jack. When threatened with the loss of his entire yard stock he hastily summoned an emergency crew to throw across the river end of his big yard a log boom that successfully held the mass of floating lumber and kept the loss by the J. G. Roy Lumber Company to a minimum.



ROBIN BRAND News

Published in the interest of Better Lumber Business
by ROBINSON MANUFACTURING CO., Everett, Washington

Volume 3

AUGUST, 1938

Number 8

PLYWOOD "SCORES"

A Timely Hit!

THE bases are loaded! Successive singles by "Need for More Modern Homes," "Favorable Material and Financing Costs," and "Plenty of Available Money" have filled the bases.

The home team, consisting of the Lumber Dealer, Contractor, Manufacturer, Architect, Builder, Laborer, Businessman, Salesman and John U. S. Citizen are sitting on the edge of the bench, biting their fingernails. What a spot for a good pinch hitter!

Sure, you get the idea. The building industry, like the manager of the baseball team, needs a product that "picks a wallop" to start the scoring. In the sheathing and subflooring field, that new product is Robin Brand PLYSCORD sheathing. The convenient, labor saving, cost cutting Douglas Fir Plywood sheathing with which you are familiar has been given two distinct improvements. These are a much improved face and the new "PLYSCORD" markings.

Each panel is marked with parallel lines across the face at 16" centers, serving as a convenient and time saving guide to the carpenter by indicating the exact centers of joists or studs, and is helpful in locating the studs when siding is to be laid over the sheathing.

PLYSCORD sheathing cuts sheathing costs as much as 25%. Nailing costs are reduced 50%, as less nails need be used. An average of more than 1,600 nails do NOT have to be driven, in the average 6-

room house, saving this waste of carpenters' time. The PLYSCORD marking, too, serves as a ready-to-use guide line for much of the sawing.

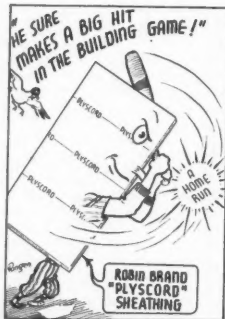
Builders are finding that PLYSCORD sheathing makes warmer, more dust proof homes, and the $\frac{5}{8}$ " thickness used for subfloors makes for cleaner basement rooms. Robin Brand PLYSCORD sheathing brings 40% greater rigidity to walls than diagonal shiplap, according to tests conducted by the U. S. Forest Products Laboratories in Madison, Wisconsin, and six times more rigidity than horizontal shiplap.

An important saving is found in its 100% utilization. With PLYSCORD sheathing you get 1,000 feet of use out of every 1,000 feet purchased, instead of 890 feet or less as with shiplap sheathing.

PLYSCORD is nationally advertised and is bound to be a big sales stimulant. Retail lumber yards are featured as the place to buy. Co-ordinate your own sales efforts with this publicity for greatest sales value.

Robin Brand PLYSCORD sheathing panels come in two widths, 32", and 48". A full 96" length and three thicknesses, $\frac{1}{2}$ ", $\frac{3}{4}$ " and $\frac{5}{8}$ ". The $\frac{5}{8}$ " is recommended for use as subflooring.

Put in a call for this new fast selling product. Stock it. Push it. and be prepared for greater sales.



COCK ROBIN Says:

How many useless things
Human beings do!

I've seen 'em
Pick up an old bone
From the lawn
And throw it out
In the street to
Get it out of the way
Of the lawnmower
Only to have it
Promptly returned
By the family pooch.

I've seen 'em
Fuss and fume to the
Other occupants of the car
For half an hour
After their "rights" had
Been encroached upon
By some other motorist,
And at the same time
Honking impatiently
At a slow-poke driver ahead
Who is going only
55 miles per hour.

I still see some
Uninformed builders who
Are using old fashioned
Shiplap for sheathing
Instead of the new
Robin Brand
PLYSCORD Sheathing!



Robin Brand PLYSCORD sheathing saves time for carpenters, saves money for builders, makes sales for dealers.

Mail This FREE Coupon!

FOR FULL
INFORMATION ON

TRADE MARK
PLYSCORD
REG. U.S. PAT. OFF. PEND.

ROBINSON MANUFACTURING COMPANY
Everett, Washington

Dear Sirs: Please send us at once without obligation your new folder giving full information on the new PLYSCORD sheathing, with prices, uses, grades and special instructive material.

Name

Firm

Address

Too Busy to Listen!

R. E. S. Finds Some Dealers Down in the Dumps While Others Enjoy Good Business

DURING the past thirty days we have visited lumber dealers in Nebraska, Idaho, Washington, Oregon and Minnesota where we found many yards of many kinds—many men of many minds.

There are a good many new things coming into the retail lumber industry. Some of them are so revolutionary—or should we say evolutionary—that it's a pretty hard thing for many dealers to accept them.

As we review our innumerable contacts with dealers, we find ourselves putting them into two broad classifications: (1) dealers who are convinced that the world has come to an end and there isn't any particular use in trying to do anything. This defeatist attitude is positively alarming in its scope. (2) dealers who take exactly the opposite attitude. They tell you of the immense pent-up demand that exists for their materials in satisfying the market for small homes, farm buildings and repairs and remodeling. They make maximum use of new tools which enable them to create business and installment selling is one of the most important. They are making money hand over fist.

But a short time ago most dealers could be found in Class 1. It is encouraging, however, to find more and more of them getting over into Class 2. It will be a great thing for the industry when the Class 2 group overshadows the Class 1 group.

The retail lumber dealer is sitting on the throne, or could be, if he only knew it. He faces a greater opportunity than is found in any other industry. He has more things to sell to more people who need them than any other retailer. Not only that but he can furnish his customers with the money to enable them to pay for the products and repay the loan on terms which have never been exceeded for liberality.

It is passing strange that one finds so many dealers worrying about a lot of extraneous things that may or may not have a direct bearing on their business. Just why a retail dealer should neglect his local opportunities to work himself up into a lather about an international problem is a bit beyond us. Nevertheless we encounter scores of dealers who are so sure that another world war is impending that they aren't trying to sell Tom Jones a new corn crib or Frank Smith a new house although both prospects need them badly and can easily get the money to pay for them. All they need is a little urging. A good dose of intelligent salesmanship will get the name on the dotted line.

As a result we have come to the conclusion that the international situation, or almost any of the other much-discussed problems, which seem to worry so many deal-

ers, even though they are located in remote areas, are nothing more or less than first-class alibis. It is their reason for not doing the thing they really know should be done. If it isn't the international situation, it is some other perfectly silly headline problem that makes good reading.

We often wonder if the retail dealer wouldn't be better off if he read fewer headlines and listened to fewer

radio commentators. Take the daily newspaper out of circulation and shut off the radios and a good many localities would soon begin to operate in a perfectly normal manner. They wouldn't spend all of their time discussing so many national and international problems.

On the trip we encountered a salesman who was discussing this very phase of the present situation. He told us about calling on a customer who was thoroughly discouraged and on the verge of laying off most of his help. He was going to operate with a skeleton organization and not do very much more than keep the yard open for the people who came in to buy little jags of material needed to make repairs, and things like that.

As it was about noon, the salesman invited the lugubrious dealer to lunch and the dealer unburdened his troubles. The salesman promptly told him that he needn't be told what they were—pointing out that the dealer's entire organization reflected how he felt, that it was apparent the minute any one stepped into the office. The whole organization was down in the mouth to such an extent that people were dodging the place.

The dealer was astonished and apparently made up his mind to take another look at himself and his organization and best of all to go to work himself.

A short time later the salesman called and found the dealer an entirely different man. Everything was rosy. His organization was up on its toes and boasting of the fact that business was really pretty good. As a result, the salesman got a highly satisfactory order.

The same salesman employed the same psychology with several dealers in his territory with the result that he exceeded his monthly quota in both May and June.

Some of these days we are going to realize that a good many of our troubles are more or less imaginary and that the condition of our profit and loss statement at the end of the year is influenced very largely by the mental attitude of the man who heads up the organization. When he gets down in the dumps he takes his organization with him and when that happens you can bet your bottom dollar that there isn't much doing around the establishment.—R.E.S.

Turning a Poor Sale Into a Good One

BEST story of the month pertains to a Massachusetts lumber dealer who knows how to make maximum use of installment selling to create bigger and better sales.

It seems that recently an irate contractor stepped into the dealer's office and told him about a home owner who had had the temerity to get him to make an estimate

on a new roof for an old house—the amount involved being \$89.00.

So far so good.

The thing that made the contractor indignant was the fact that the home owner had asked permission to pay for the job at the rate of \$10.00 per month.

This was asking entirely too much, according to Mr. Contractor.

After consoling the contractor, the lumber dealer remarked that it sounded very much like a prospect for a monthly payment job and suggested that they call on the prospect to see what could be done about it.

Upon looking over the home owner's house the lumber dealer observed that several sash needed replacing and that the siding was bad in spots. The entire interior needed painting.

In the course of the conversation he found out that the home owner was anxious to sell the house and was offering it for \$900.00. By suggesting that a general modernizing job would increase the owner's chances for a sale, the lumber dealer worked the \$89.00 estimate up to a \$654.00 sale!

Naturally the contractor was pleased beyond words. The original quotation had been increased eight times and he was to obtain cash for the job.

But that isn't the best part of the story. Here is the "believe it or not" feature.

The following week the home owner sold the house for \$2,700.00!

For a long time it has been our contention that the salvation of the retail lumber dealer lies in his ability to CREATE sales—to make two or more sales grow where none grew before. Unless he is able to do this he will find the going pretty tough for the simple reason that there is not enough "self-starting" business in any given community to enable the lumber dealers in that trade area to do a satisfactory volume.

"Self-starting" business is usually highly competitive. The prospect who finally decides to build something is usually a pretty tough shopper. The retailer who eventually makes the sale is usually the lowest bidder and by the time the bids are all in there isn't much profit in it for anybody.

On the other hand, the dealer who goes out and creates a sale encounters an entirely different proposition. In about 99 percent of the cases such sales are non-competitive. The shoe is on the other foot. The dealer shows the prospect how he can make a profit by modernizing his property.

Take the above incident as a typical example. The contractor did nothing more or less than make a quotation on a small portion of the job which the prospect actually needed done. Mr. Home Owner knew he needed a new roof because the roof leaked. He wasn't particularly conscious of the fact that he needed a lot of other things because the need for them wasn't quite so dramatic. They didn't smack him in the face like water running through the roof. It took a retail dealer with the right kind of eyes to detect the additional needs of the prospect. Not only that but he turned them into a sale by talking PROFITS for the home owner who was preparing to offer his property at a sacrifice because it was in such bad shape.

Instead of an \$89.00 roof the lumber dealer saw a \$654.00 modernizing job. He didn't find it particularly difficult to make the sale because he could readily show the prospect how he could increase his profit a lot by spending a little more money. And that is exactly how he worked it out. \$900.00 plus \$654.00 equals \$1,554.00. Deduct this from the \$2,700.00 and the answer is \$1,146.00.

Whereas the property owner had been willing to sell the whole kit-and-kaboodle for \$900.00, and was willing to spend \$89.00 for a new roof in order to sell it at that price, he actually made a profit of \$1,146.00 by taking the advice of a retail dealer who knew what he was talking about.

To our way of thinking, the transaction is one of the most potent examples we have come across to show what installment selling can accomplish in the lumber yard and it doesn't take a powerful microscope to locate the key man in the entire proposition—the retail lumber dealer. The contractor muffed the ball. So did the property owner. It took a smart retail lumber dealer to put the component factors together and make a highly satisfactory deal for all parties concerned—lumber dealer, contractor, home owner, and eventual purchaser.—R.E.S.

Prospects Everywhere

JUST to give you a rough idea of what farmers are thinking about, it is interesting to know that between February 15th and May 31st "The Farmer," published in Saint Paul, received 953 requests for building information.

Here are the things that farmers want to buy and will be buying from the lumber dealer who has the ability and the organization to turn the prospect's needs into a sale: new homes, 268; remodeling present home, 101; roofing, 4; foundation, 2; building materials, 27; furnace and heating, 5; ventilating, 1; interior decorating, 3; insulation, 14; painting, 6; plumbing, 5; electricity and equipment, 10; water supply and water systems, 28; sewage disposal, 6; garage, 22; new barn, 150; remodeling present barn, 25; insulating present barn, 2; ventilating present barn, 2; new silo, 17; hog house, 33; poultry house, 120; poultry house equipment, 16; sheep barn, 7; fences, 3; corn crib and granary, 33; dairy house, 9; machine shed, 24; gas station, 5; community hall, 1; culvert of concrete, 1.

And these 953 inquiries don't even scratch the surface. They merely originated from the readers of one farm publication in one territory but they certainly indicate that there are farm prospects everywhere you go—a gold mine for the lumber dealer who is able to make the most of the situation.—R.E.S.

Interesting Figures

JUST had an interesting visit with a retail lumber dealer who has financed 374 house jobs during the past few years. He was in it up to his neck even before FHA came into the picture. Total amount involved \$715,400.00 of which \$439,242.00 has been paid, leaving a balance due of \$276,157.00 against the present valuation of \$1,610,067.00.

Percentage of loans to valuation was not high—45 percent to be exact—because so many customers were able to make a down payment of a substantial amount. Average term, 8 years. Average loan, \$2,249.00.

"When FHA came into the picture our percentage of loan to valuation went up," said the dealer, "but it has never reached anything like 80 percent as we always encourage customer to make as large a down payment as is possible and to pay off the obligation as rapidly as he can. We do not urge him to undertake more than he can handle and we sit down with him and try to figure out what it appears he can safely take care of and we have found that it pays to do so."

Of the total deals, 161 have been paid out in full. Only 19 were taken over by the dealer because they became

(Continued to page 116)

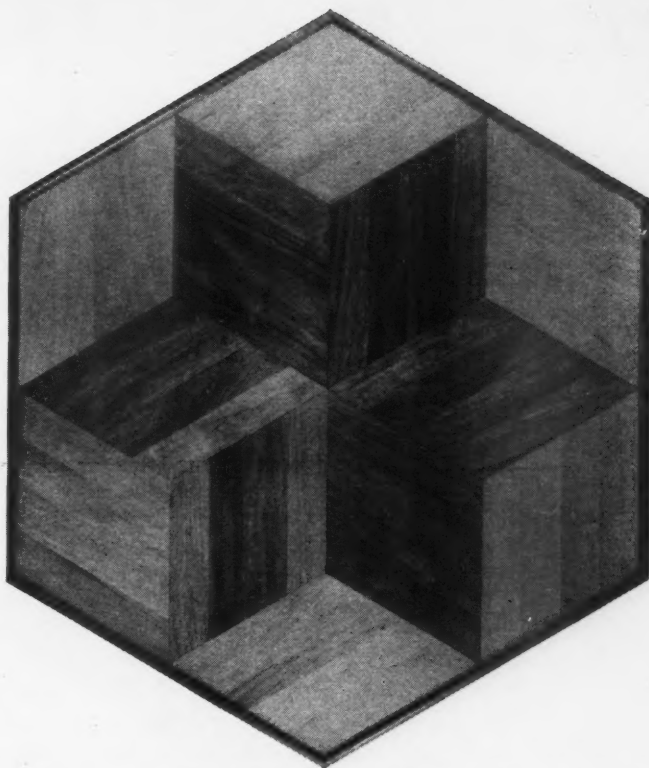
Pecan Favored for Paneling and Floors

TWO of the new things in the lumber line are pecan flooring and pecan paneling. These were effectively displayed at the Dallas Convention of Texas Retailers last April, the Frost Lumber Industries exhibit attracting a lot of favorable attention. With more than 350,000 acres of pecan timber available for cutting, John L. Avery, general sales manager of the Frost products, reports that much progress is being made in establishing an appreciative market for this old-new wood. Notable installations are being made, he says, in public buildings, skating rinks and dance floors—where heretofore a high grade of maple was required.

A new building, which is a very beautiful building, on the campus of the Louisiana State University in Baton Rouge, is trimmed in pecan and the doors and woodwork in the building are of pecan and pecan veneer and plywood.

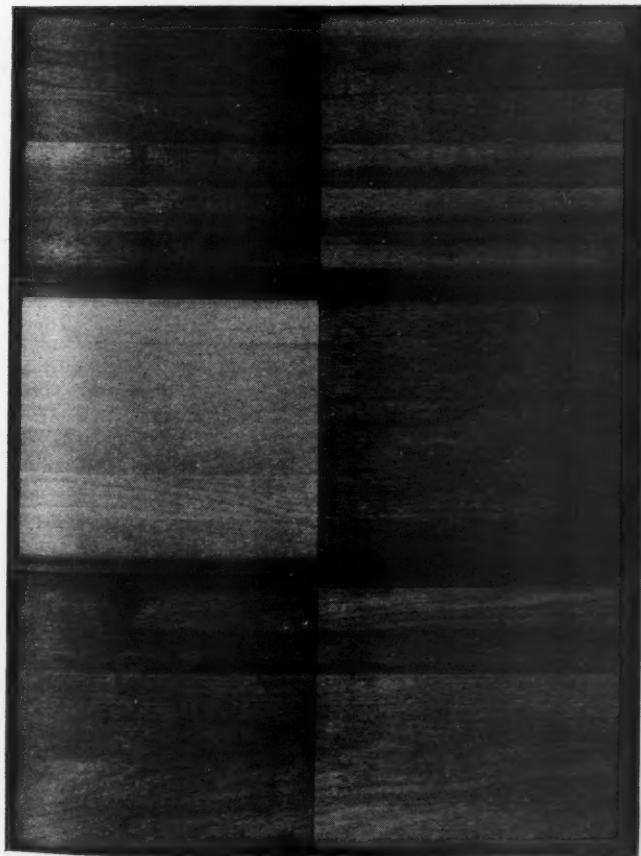
"We have one of the largest piano companies bringing out a line of pianos in pecan. We also have one of the very large office furniture companies bringing out a line of office furniture in pecan in the highest priced class and we have manufactured dining room tables and furniture, bringing out a line of dining room furniture, and especially high priced tables, in pecan. Another concern making school furniture and library equipment has been using pecan for several years," Avery reports.

The library building at Louisiana State Normal at Natchitoches, La., has all the furniture and equipment made of pecan, and the new administration building of Louisiana Polytechnic Institution at Ruston, La., has the furniture and desks and other equipment made of pecan.



Tests at the U. S. Forest Products Laboratories at Madison, Wis., show that Louisiana pecan flooring compares very favorably with oak and maple as to specific gravity, strength, hardness, absence of shrinkage, shock-resisting ability, toughness and stiffness.

The wood comes in three grades: No. 1 white (sap wood), No. 1 red (heart wood), No. 2 white and red mixed, No. 3 white and red mixed, carrying minor defects.



PECAN Flooring samples displayed at the Texas Convention showed several shades and finishes. The pecan paneling samples (at right) illustrate two different patterns; wood shows interesting "character marks."

Harry Rowell of Portland Puts Over "Proper Housing"

GOOD IDEAS carried to successful realization are not uncommon in the lumber business. But the merchandising plan described in this article is both unique and of exceptional merit—moreover, it worked. This idea was conceived by Harry Rowell, president and general manager of Rowell Lumber Service, Inc., Portland, Ore.; its background was this man's belief that the public desires quality materials, is willing to pay for them, and that it is the retail lumber and build-

ing material merchant's responsibility to furnish such products.

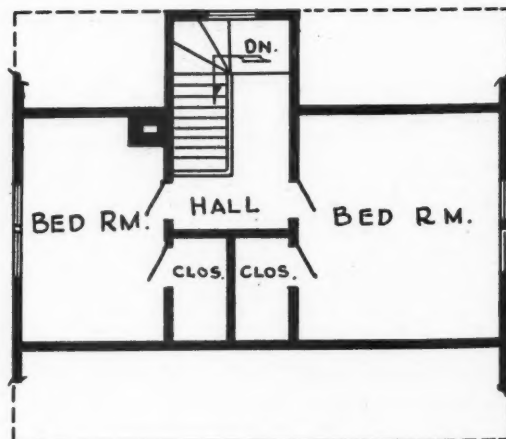
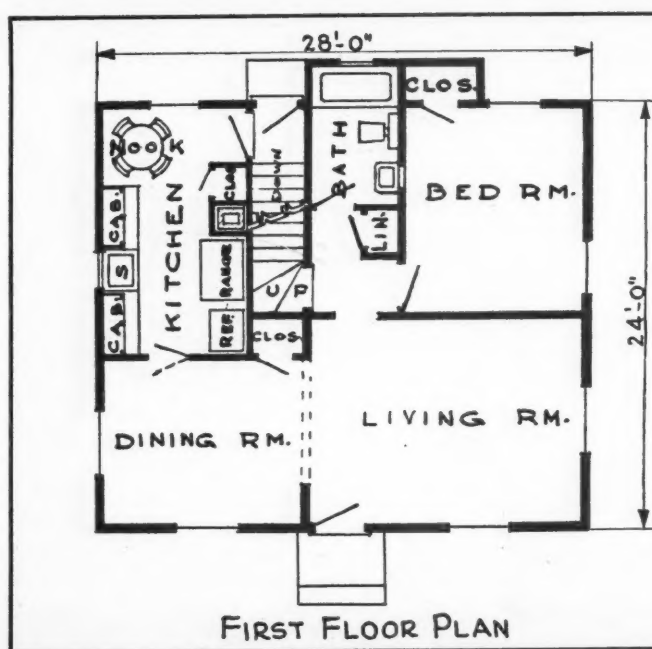
Rowell conducts a retail lumber business and does not sell houses, nor does he build them. His profit in the following plan is derived only from the sale of the materials in the houses and in others not sponsored by his organization.

Harry Rowell has been a quality-minded lumberman all his business life. In a territory in which green lumber

from nearby sawmills has been accepted as suitable for homes, Rowell since 1926 has been selling kiln-dried lumber. He stocked and sold Wolmanized Lumber before anyone else in his area became interested in it. He sells no materials that do not meet high standards of quality.

The following three factors

THE Cape Cod demonstration home at the left is one of two used in Harry Rowell's Proper Housing campaign to show that quality materials and construction, together with good planning, can be had for \$30 a month or less.



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from the basis of Rowell's promotional plan:

1. The greatest market, and the one most susceptible to the promotional methods to be used in the campaign, is the small house market, limited to prospects whose monthly income averages \$120. On sound budgeting, about \$30 a month is all that such an income will allow for housing costs. Such an amount, using FHA financing, will pay for a house and lot valued at \$3,750 or less.

2. While \$3,750 will buy only a small house, it can well be a good small house. Therein Rowell simply falls in with FHA standards. The houses must be plain and well designed, with a minimum of elective extras. Materials must be the best the market affords in that class, not from a standpoint of luxury but from that of quality.

3. This is Rowell's own contribution to better salesmanship and better building. It is not borrowed, as are the first two. It consists in selling by education to a class of prospects who have never been approached that way before. The results of his "course" in better materials and better construction show that the public does not, as is too often stated, judge all builders and dealers by the bad examples which must be used as comparisons.

Last year Rowell put his ideas into practice and laid the groundwork by retaining Hill & Jackson, designing engineers in Portland with over a million dollars' worth of structural design to their credit, to draw plans for eight houses figured by Rowell to cost \$3,500 or less. He arranged with Cole & Peterson, Portland contractors, for the actual building and selling of the houses. He adopted (and copyrighted) a catch-phrase and theme: "PROPER HOUSING, suitable shelter, properly built and arranged to afford fullest comfort, convenience and health at a cost to the occupant within his ability to pay."

Then Rowell began bi-weekly radio lectures at noon on Sundays. In each one he stressed the fact that, for the price limit set, the houses could not be full of widely advertised "extras" and still be well built. The structure must come first. He took the edge

off that by reminding the listeners that you can *always* add to a properly constructed house—to a shoddily built one, never.

Then he went into the subject of materials. His houses *are* built well; no one in Portland could find room to criticize, although many were against him for obvious reasons. He made his points so clear, and gave such convincing proof to back up his statements, that his audience became a permanent one.

As a continuous example of the points discussed in his lectures, three display houses were built concurrently with the programs. Thousands of people followed the building of the houses as if they were a continued story.

After the first two talks, and while ground was being broken for the model houses, the Portland News-Telegram became interested and suggested a tie-up between

FREE!

YOURS for the Asking!



Facsimile of the Booklet You Receive. We pay postage

This booklet, covering vital questions and the answers on the most discussed subject of the day.

90% F. H. A. Insured Loans

Will the federal government lend me money to build a house?
How do I go about getting a loan?
How long do I have to pay back an insured loan?
Do my monthly payments include taxes and fire insurance?
When can I get building plans for houses?
If I earn \$100 a month is it advisable to build?
The booklet answers the above questions and many others.

• • •

This booklet contains 8 sets of house plans—consisting of exterior elevation and floor plans.

• • •

DON'T DELAY ACT NOW!

So great has been the demand for this Booklet on FHA 90% Insured Housing Loans that it has been necessary for The News-Telegram to publish the

3rd. EDITION

to fill all requests received to date We Will Gladly Mail Your Booklet

Kindly fill out the attached coupon and mail to The News-Telegram

MAIL THIS COUPON TO THE NEWS-TELEGRAM HOME BUILDING BUREAU 1181 S. W. Fifth Ave., Portland, Ore.

I am interested in knowing how to finance and build a NEW HOME. I will appreciate the Free Booklet on "PROPER HOUSING."

I own a lot (.....) I have some cash (.....)

I do not own a lot (.....)

I can afford monthly payments of (\$.....)

I am interested in a home costing about (\$.....)

NAME CITY STATE

ADDRESS CITY STATE

THE advertisement at the right appeared this spring in the Portland News-Telegram twice the size that it is shown here. To date, over 2000 requests have been received for the booklet, Rowell reports.

their weekly home building page and Rowell's program. The latter agreed, and the *News-Telegram* began to advertise a home building service in which inquiries for a booklet titled, "Going to Build or Modernize a Home?" were solicited. One of these ads is reproduced at half-size. This booklet was Rowell's and inquiries were turned over to him; 1,500 requests for it were received in the first two weeks of the combined radio-news advertising. Several thousand inquiries were totaled by Rowell's yard and the newspaper and radio station.

Convinced by the sincerity of Rowell's radio talks, by the new stories in the *News-Telegram* (and subsequently the *Oregon Sunday Journal*, which carried small advertising by Rowell), and by the demonstrations at the building sites, prospects began to make definite requests for this house and that. One man became so insistent that he was sold a house before it was finished. The two remaining houses were held off the market for thirty days after completion to allow all who were interested to see them. It became obvious that the man who wants a home is far more interested in construction details than he is supposed to be, and that he can recognize value when he is given a chance to learn why and where materials pay their way. According to Rowell, the two display houses which are illustrated with plans on these pages could have been sold time and again during construction.

Featured by Rowell in the construction of all the houses were:

Careful planning to eliminate waste space and to give all possible livable area.

1:3:5 concrete mixture for foundation walls, steps, sidewalks and driveways. Deep adequate foundations.

"Wolmanized Lumber" in sills, posts, girders, cellar sash frames and gutters. (The total cost for treatment of that quantity of lumber is \$14 per house. The interest in Wolmanized Lumber developed surprisingly. Women called the lumber yard for clothes poles and posts of that "wood that won't rot." People who were building larger homes under architects' supervision asked for its inclusion in their own specifications.)

Kiln-dried framing lumber throughout. This was the major theme because green lumber is so widely accepted in the Northwest.

"Royal" oak flooring in full 13/16" thickness.

Crane or Kohler plumbing fixtures.

Creo-dipt stained shingles on roofs and sidewalls. Clear vertical grain cedar siding optional.

Armstrong linoleum.

Schlage solid hardware and locks.

Nationally advertised brands of plywood, insulation board, etc.

With the assurance of increasing success, Rowell has extended his plan. Promotion work has been kept up and a new booklet has been prepared. The latter is now in the third edition and shows one elevation and floor plan of each of ten houses, including the model homes as they appeared when finished. One of these, the gray shingled house shown on page 109, is 42 feet x 28 feet with 4 rooms and an attached garage. It contains a 12 x 18 foot living room, two bedrooms, bath, large kitchen and dining nook. With central heating and plumbing installed, wallpaper, trim, etc., the completed house in Portland was priced at \$3,300 exclusive of lot. The other, a white Cape Cod cottage on page 106, has three bedrooms—two upstairs and one downstairs. It contains, as well, a kitchen, dining room and bath. Dimensions are 28 x 24 feet. Cost complete was \$3,450.

According to the latest advice from Rowell early this summer, over 2,000 people had sent in signed coupons asking for these plan books and indicating investments

SMALL newspaper space is used periodically to call attention to Harry Rowell's Sunday radio talks on Proper Housing. Notice that this ad also invites inspection of the demonstration homes and points out the quality materials used in them.

"PROPER HOUSING"

LISTEN IN KEX—12 SUNDAY NOON

Even the most modest home should be built of the best materials.

See Demonstration Homes Today
S. E. 34th Avenue, off Gladstone
\$3000 to \$3750, including Lot

DRY LUMBER
All Framing Lumber, kiln-dried
to 20% average moisture content.

WOLMANIZED LUMBER
Pressure-treated—Defense against
Dry-Rot and Termites.

"ROYAL OAK" FLOORING

"CREO-DIPT"
Nationally-known factory stained
Shingles and Shakes.

COMPLETE LUMBER SERVICE
Consult Us on Your
Building Problems

ROWELL LUMBER SERVICE, INC.
EA 5022—1406 S. E. Water Ave.

in new and repair work totaling over \$4,000,000. Rowell states, "Over 5,000 people have inspected the two demonstration homes. Both are sold and 20 duplicates of them will soon be or are already under way on our 'Proper Housing' program. We are continuing our radio programs of 15 minute talks every Sunday explaining proper use of materials, methods of construction, finance costs, etc. These talks have proved very effective. Even in our lumber country the good folks do not know there is a difference in lumber. One interesting thing to us is the number of people who want us to take the contracts to build these houses, because of fear of 'jerry builders.' We are not building but are sponsoring and assuring them satisfaction—if they will follow our specifications. If they do not get contractor satisfaction, we will eventually build them ourselves. The public wants Proper Housing.

"Under way now on our plan are two suburban developments of ½-acre lots which with houses are to sell for \$4,000 and less.

"From the series of about 25 plans which our designer, Mr. C. W. Jackson, has produced—all in this average price range—there will undoubtedly be at least 100 houses built within the next 8 months.

"We are very much pleased with the success of our efforts in this field and it is our thought that the lumber dealers must actually produce these houses to get the ball rolling and set a standard for Proper Housing that will be a guide to avoid the errors of past boom building."

Finally, for the guidance of any lumber dealer who might be interested in conducting a similar plan, a few

words should be added about Harry Rowell's radio talks. Of course, broadcasting might not be practicable in a city where radio time rates are extremely high or newspapers less agreeable to co-operation. As described above, however, it is obvious that these talks were the focal point of the campaign. The small newspaper advertisement on the opposite page shows how the public was advised of these broadcasts and how the demonstration homes were tied in to give people a chance to see for themselves. Being 15-minute speeches, lack of space prevents reproduction of one of them in full; the following excerpts from a typical talk indicate the approach made to the low cost, quality field. Note that, although packed with cold facts and aggressive selling punch, the text is written in an interesting and easily understood style which carries sincerity and conviction:

"In this 13th broadcast on Proper Housing we are again speaking as lumbermen, not with any claims of being authorities on housing but since we are directing our attention to the great number of average families who want to own homes, and should own them, it just naturally should be a responsibility of *all* lumbermen to lay avail-

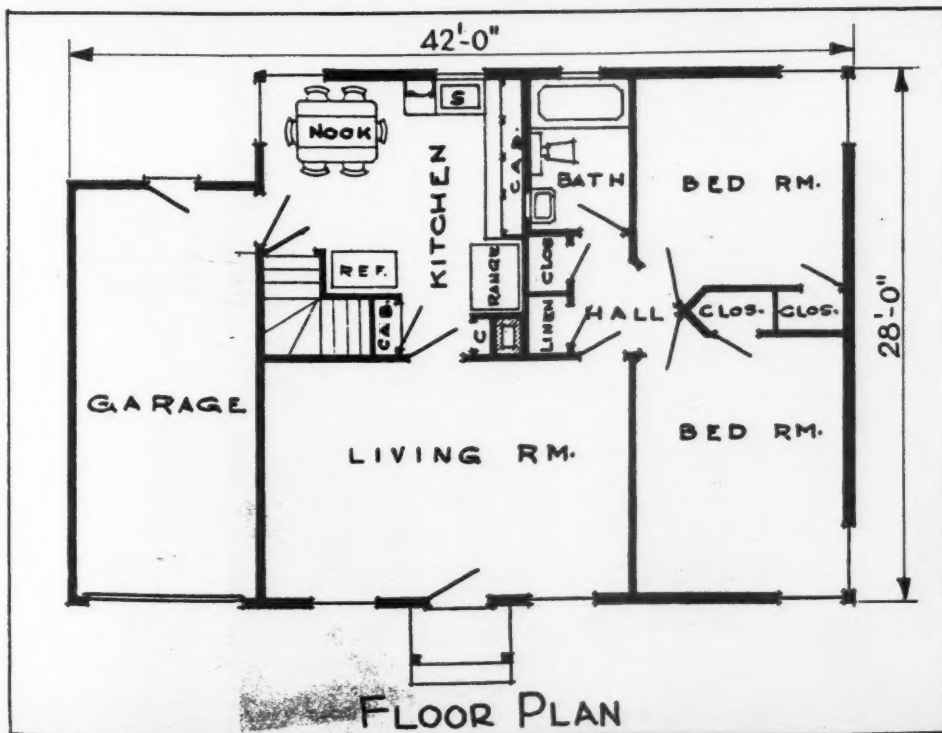
able facts on home ownership before the public. The average family can afford to own a home which 25 per cent of their income will support, and the average family income will only support a home in the average price range of \$3,500 including land or lot. These figures are well established as facts by the results of surveys of government and private sources, whose impartial findings cannot be doubted.

"Houses in the \$3,500 price range are of necessity lumber houses. Lumber construction is the least expensive type of construction and yet allows labor the largest returns in wages in the completed cost of the structures. About 86 per cent of all single dwellings in this country owned by those in the average income group—from \$1,000 to \$2,000 annual income—are lumber-constructed houses; that is, all lumber, or lumber structures with outside walls of veneer or some other materials, brick, stucco, etc. In this western country of ours, we have determined that about 23 per cent of the entire cost of the home is the retail lumberman's share of the cost. This figure includes rough and finish lumber (inside and out) roof and sidewalls, sash and doors, flooring both

hardwood and softwood. In mid-west and eastern cities the same items amount to 45 to 50 per cent of the total cost. That is why we have maintained that Portland home owners are able to buy a Proper Home in the price range that the average family can support, i.e., a \$3,500 home that is the equivalent of a \$5,000 home in the Midwest or East . . .

"We have offered our suggestion in a program which we call 'Proper Housing.' We define Proper Housing as 'suitable shelter, properly planned and constructed to provide maximum comfort, convenience and health to the occupant at a cost that is within his reasonably assured ability to pay.' Note that our definition of Proper Housing is in two parts; the *first* demands the proper *planning* and *construction* of the house: this is the responsibility of the entire building industry. The *second* part of our definition covers the matter of the owner's ability to pay . . .

"The fact remains very clear that *everyone* cannot have
(Continued to page 116)



THIS gray shingled one-story house is another used to demonstrate the Rowell Lumber Service Proper Housing campaign. Like the two-story Cape Cod model, it is well planned, well built, and priced to reach a large market.

STOCK PLANS

Through Retail Lumber Dealers

AMERICAN BUILDER is not in the stock plan business and does not have architectural plans or blueprints for sale. It does not care to be in competition with local architects, builders or dealers who are rendering efficient architectural service, or with the association plan services set up to serve local dealer members from central drafting offices.

IDEAS FOR SALE

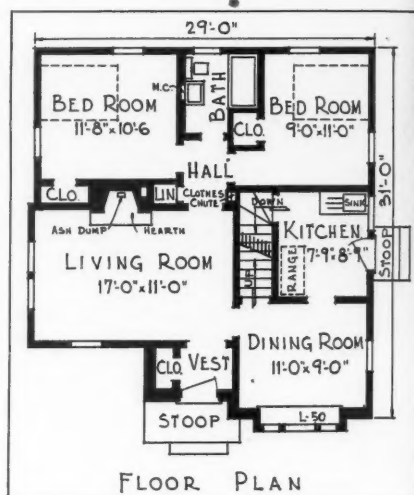
Dealers Profit Two Ways When They Furnish Home Plans

MOST dealers will agree that their best and most profitable business is that which comes to them without competition. There are plenty of chances to sharpen the old pencil on lumber lists that come in, and the dealer knows that all his competitors are figuring the same bill—but how different it is when a prospective home builder walks into the office to look over plan books and pick out a design! Then it is that the dealer who is at all resourceful or merchandising-minded can have ideas to sell that will indeed pay him big profits.

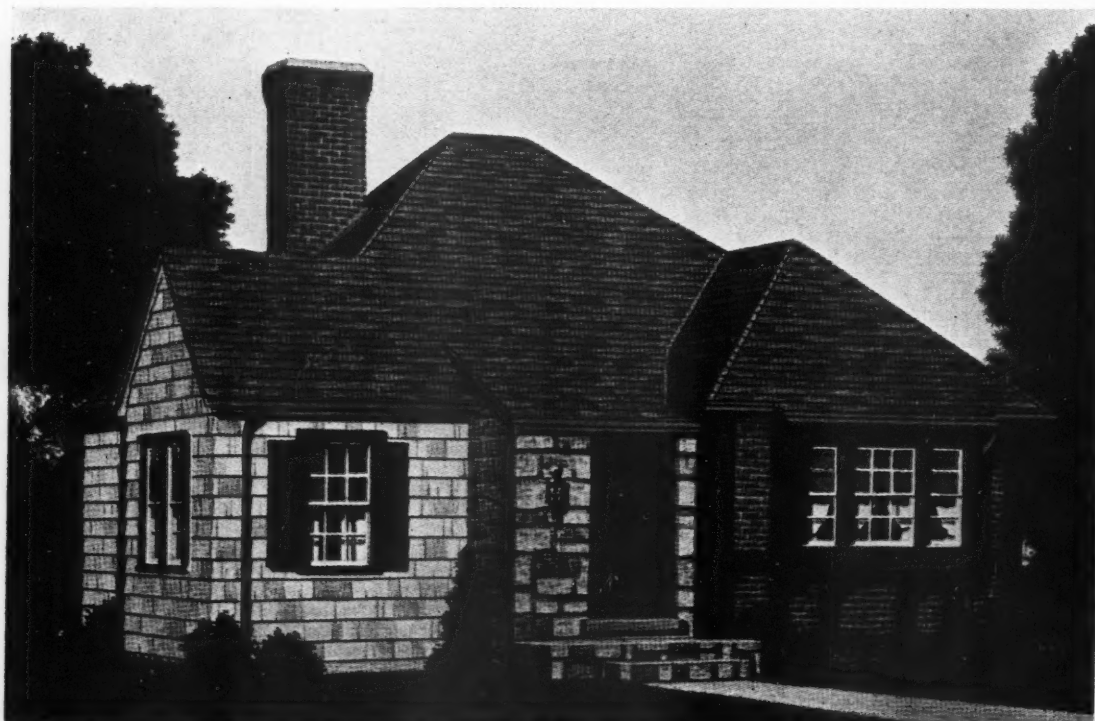
First have the attractive designs available with which to interest the prospective customer. But then don't be satisfied just to hand out the books or magazines, but show a personal interest and offer suggestions here and there that will improve the design (and any design

or floor plan can be improved with study), and a real friend is soon made who becomes a preferred customer. In this way a double profit develops in that the dealer first secures first chance at a complete house bill sale without competition, and second, he has the opportunity of building up that sale through suggested changes that improve the design or the comfort of the new home, increasing the amount of the sale at the same time.

TruCost estimating figures are included for all designs in the *American Builder*, making it easy to quote accurate local prices on any of these designs.



**MODEL L-50, a
National Plan
Service design of
artistic merit.**



AMERICAN BUILDER
TruCost FIGURES
FOR THIS HOUSE
ON PAGE

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ALTERNATE
plan No. 2 has
same floor ar-
rangement with a
Colonial all-wood
facade.



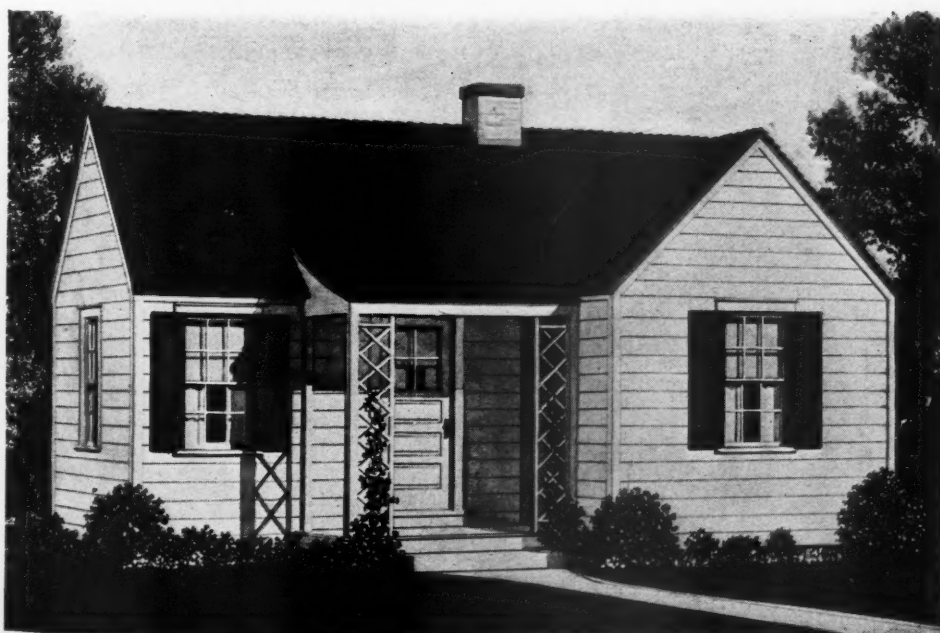
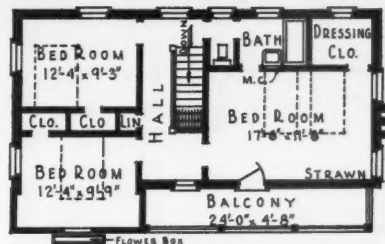
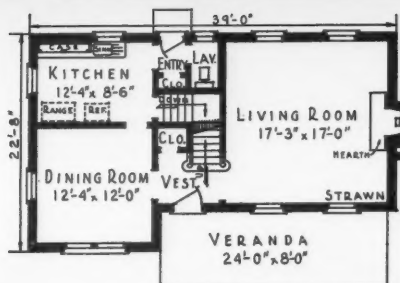
LARGE & SMALL

California Monterey

Vies with Simple Cottage

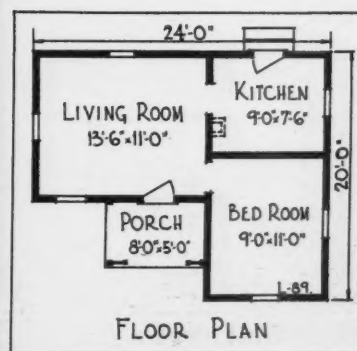
AMERICAN BUILDER
The **Cosy** FIGURES
FOR THESE HOUSES
ON PAGE

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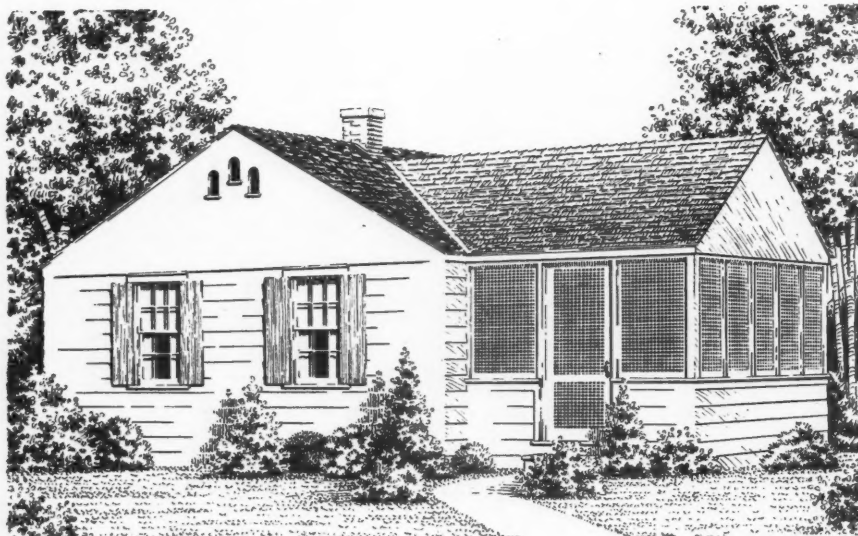
THE Strawn (above), a National Plan Service design, of distinction.

DESIGN L-89 (below and left) is a comfortable three-room cottage.



SIX COTTAGES FOR ONE FLOOR PLAN

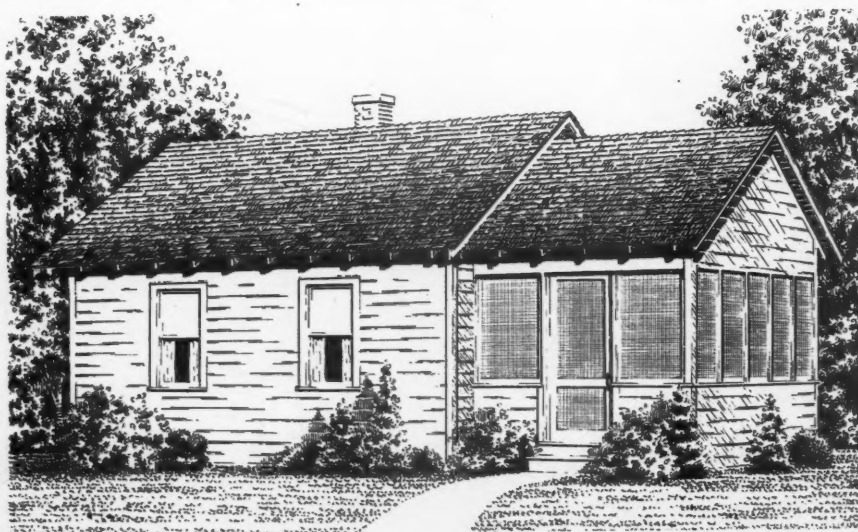
Economy in Standardized Plan;
Attractiveness in Variety of
Exterior Appearance



THE Cottonwood, Design A, is slightly "Spanish" with stucco in the gable ends.



THE Cottonwood, Design B, carries a hip roof with much economy; a thrifty design.



THE Cottonwood, Design C, is straight gable bungalow style, probably least expensive of all.

"THE Cottonwood," a popular home design from the National Plan Service, Inc., Chicago, has been so tested and approved by the architects as well as by lumber dealers that finally six different exteriors for the one floor plan have been developed.

The six exteriors are illustrated on these two pages. Note that all of them except Design D, the modernistic corner-windowed design, fit this floor plan without any change at all in the location of the doors or windows. In Design D the only change is the moving of the windows to the corner position, as indicated on the perspective sketch.

This Cottonwood design was originally worked out as a summer cottage and the architect had this thought when he designed it. "To spend the week end or vacation in this attractive, efficient cottage will prove the theory that mental serenity

AMERICAN BUILDER
The Cost FIGURES
FOR THIS HOUSE
ON PAGE

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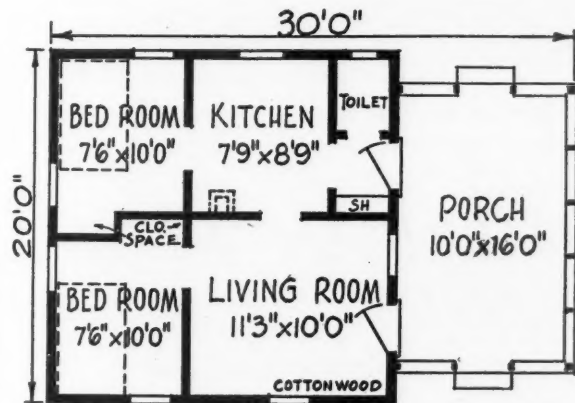
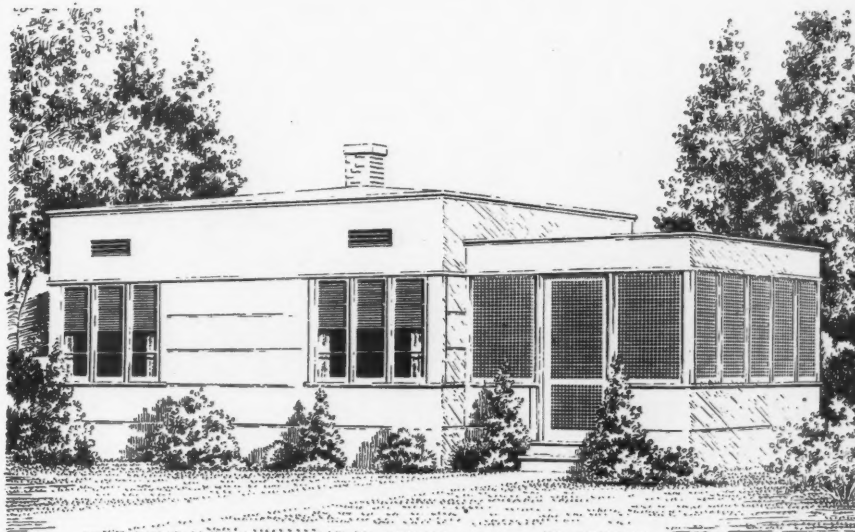
THE
an E
half-

and physical relaxation are coincidental with one's immediate environment or surroundings. Complete rest and the delight of carefree vacationing is the purpose for which the charming Cottonwood was designed. The layout, while being attractive, features efficiency. Unnecessary footsteps are eliminated in the floor plan design, and enable the assurance of a real rest for the occupant."

That speaks pretty well for the purpose and its realization in this floor plan. Now it happens that these same comforts and conveniences designed for a summer cottage are equally appreciated by the housewife in her village or suburban home for all the year 'round use. So this home, originally designed for vacation use, has been adopted by builders, and this charming group of six different perspectives has been designed for it as shown at left and right.

Subdivision developers often like to use a standardized floor plan so that all dimensioned lumber can be cut to a given size and mass production efficiencies realized in handling an entire street of houses at one time under one contract. Variety in external appearance is, of course, important; otherwise such a street becomes monotonous and dull. The six designs given the Cottonwood certainly take away all feeling of monotony, offering a variety that is really astonishing and all fitting one practicable plan.

THE Cottonwood, Design D, has gone modern with flat roof and corner windows.



FLOOR PLAN

THE Cottonwood, Design E (above and to right), is an embellished modernized version of Design C.



THE Cottonwood, Design F, shows an English exterior with ornamental half-timbering in the gable.

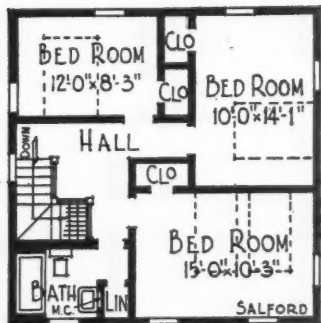




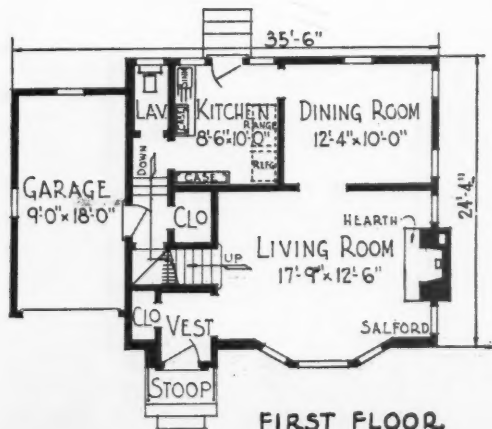
"THE Salford" from the National Plan Service, Inc., Chicago, is a well designed Early American model containing six rooms, toilet, bath and garage.

EARLY AMERICAN WITH STONE FRONT

Coursed Ashlar for the First Story
Front Stamps Quality All Over This House



SECOND FLOOR



FIRST FLOOR

"THE Salford" is a good looking Early American design embellished in characteristic Eastern style with a coursed ashlar wall for the first story front, around the entrance and the impressive bay window. The second story in wide clapboards is bracketed out to overhang the stonework, but lining up with the face of the bay window and the entrance door.

The architect of this design, in presenting it, says: "A home in good taste is always in style. This modified Early American home with its balanced arrangement of windows set off by a large, imposing bay, gives it an air of neatness. The rooms are laid out with efficiency and comfort as the dominant features."

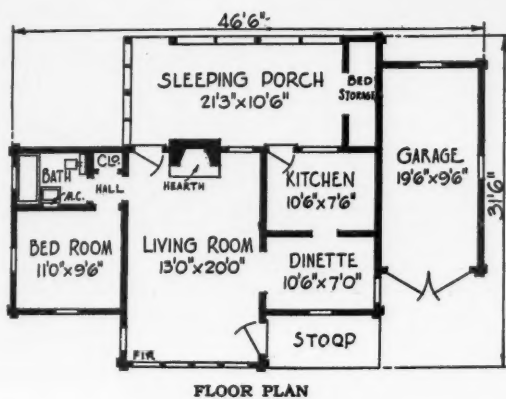
A study of the plan shows that this confidence and praise are justified because this really is a well designed home, perfect in its ways. Because of the garage extension to the left, the house appears to be really larger than it is. The cubage is 21,500 cubic feet. The size of the main building, 26 ft. x 24 ft. 4 in. Size over all, including the garage, 37 ft. 9 in. x 34 ft. 9 in.

AMERICAN BUILDER
True Cost FIGURES
FOR THIS HOUSE
ON PAGE

"THE Fir" from the National Plan Service, Inc., Chicago, is a squared timber log cabin of four rooms, garage and porch.

AMERICAN BUILDER
TrueCost FIGURES
FOR THESE HOUSES
ON PAGE

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FLOOR plan (above) of "The Fir" shows the spacious comfort and relaxation invited in a summer cottage of this type. On lake, stream, or in the woods, such a retreat is a real joy.

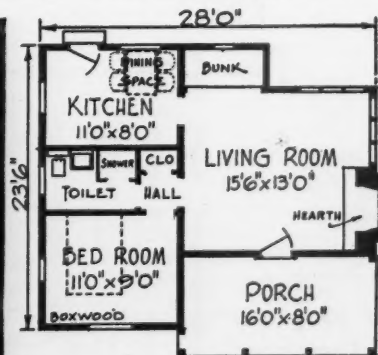
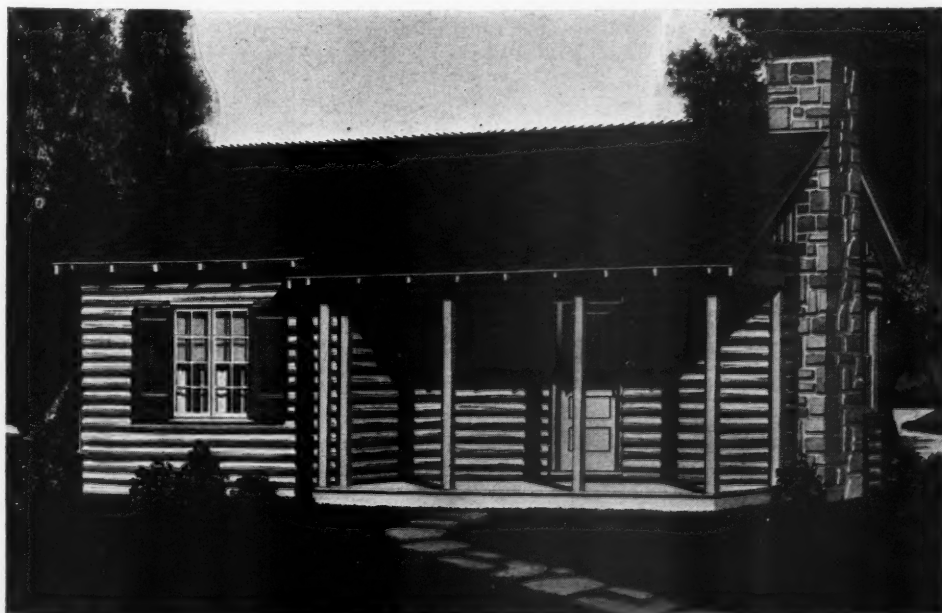
TWO SUMMER COTTAGES

Cabins of Squared Logs or Log Siding
Fit Wooded Building Sites

ABOVE we have "The Fir," a summer cottage of considerable character. Just one glance at this trim, charming and altogether original summer home will bring instantly to the minds of many the thought, "Here is the cottage I want to build." Simple, yet different, and small yet large in an utterly efficient interior arrangement. Observe that the large porch can be easily screened in, and thus utilized as a comfortable sleeping room. The attached garage offers needed protection for the car, and adds to the impressiveness of this dwelling.

"The Boxwood," illustrated below, shows three rooms and a porch. Complete rest and the delight of carefree vacationing is the purpose for which this cottage was designed. The layout, while being attractive, features efficiency. Unnecessary footsteps are eliminated in the floor plan designed, and enable the assurance of a real rest for the occupant.

The TruCost data or estimating figures from which quick, accurate local building costs for each of these designs can be easily figured by the local dealer, are presented in the table on page 116.



"THE Boxwood" is a little log cabin from the National Plan Service showing three rooms and bath, all in genuine woodsy style.

TruCost

Figures for American Builder Homes

HOME DESIGNS ON PAGES AS NUMBERED

Unit of Construction	Aug., 110	Aug., 111, Top	Aug., 111, Bottom	Aug., 112 (C)	Aug., 114	Aug., 115, Top	Aug., 115, Bottom
Basement Walls, lin. ft.	121	123	88	80	106	136	103
Trench Walls, lin. ft.	11	36	13	36	37	72	26
Basement Floor, sq. ft.	920	772	368	400	661	654	535
Garage Floor, sq. ft.	0	0	0	0	180	200	0
Excavation per ft. deep, cu. yds.	39	36	18	20	31	35	26
HoltRate on following items	1.644	1.592	.522	.645	1.532	1.140	.761
Outside Walls, squares	11.9	21.8	9.4	9.0	23.8	17.1	11.2
First Floor, squares	9.2	7.7	3.7	4.0	6.6	6.5	5.4
Second Floor, with Fin. Fig., sqs.	0	7.8	0	0	6.8	0	0
Second Floor, without Fin. Fig., sqs.	0	0	0	0	0	0	0
Ceiling, sqs.	9.2	7.8	3.7	4.0	8.4	8.5	5.4
Roof Pitch, inch rise per ft. run	12"	8"	12"	8"	10"	8"	8"
Roof, squares	14.3	11.4	6.4	5.8	12.2	15.5	9.3
Hips and Valleys, lin. ft.	110	24	26	0	0	0	0
Cornice, type and size of	C & F-24'	C & F-152	C & F-106	12"-96	C & F-170	12"-204	12"-127
Cornice, lin. ft.	8"-110'	0	0	0	0	0	0
Partition, lin. ft.	123	161	22	47	196	96	47
Inside Finish OS Walls, lin. ft.	123	247	88	80	228	156	103
Front and OS French Doors, opps.	1	2	1	1	1	2	1
Rear and Grade Doors, opps.	1	1	1	1	1	1	1
Garage Doors 8' wide	0	0	0	0	1	1	0
Inside Doors and Cased Opps., opps.	13	18	2	4	16	6	5
Windows and Casements, opps.	13	21	6	8	22	13	12
Gable Sash and Louvers, opps.	0	0	0	0	1	0	0
Chimney, lin. ft.	32	34	26	26	39	26	27
Main Stairs	0	1	0	0	1	0	0
Porch Floor, sqs.	0	3.0	.4	1.6	0	2.6	1.3
Porch Ceiling, sqs.	0	2.2	.4	1.6	0	2.6	1.3
Porch Beam, lin. ft.	0	29	13	36	0	32	26
Porch and Bal. Post and Newels, No.	0	4	2	2	0	3	4
Porch Roof, sqs.	0	0	0	2.4	0	0	0
Porch Cornice, lin. ft.	0	0	0	42	0	0	0
Porch and Deck Rail, lin. ft.	0	29	0	36	0	32	0

Necessary Home Equipment, Fixtures, Accessories, Extras

Since the above surveyed items cover only the actual superstructure of the house, you should figure and add the following items as specified or wanted (and don't forget Overhead and Profit):

Areaways, Cellar Sash, Coal Chute, Basement Partitions & Doors, Attic Flooring, Attic Stairs, Blinds, Gutters & Downspouts, Fireplaces,

Built-in Cabinets, Rail & Newels for Stairs and Stair Well, Beamed Ceiling, Weatherstrips, Tile Work, Plumbing, Heating & Air Conditioning, Lighting, Terraces, Patio Walls or Fences, Sidewalks including Porch Steps, Driveways, Unattached Garages. Also add for painting and decorating if not included in Unit Costs.

R. E. S. Gives Some Interesting Figures

(Continued from page 104)

delinquent. However, all of these were refinanced without loss with the exception of one which is now pending. An arrangement was made whereby this deal is now being liquidated on a satisfactory basis but the dealer did not include it in the tabulation as it had not been paid out.

"I think this showing is spectacular proof of the soundness of installment selling," he concluded. "Here is a total volume of more than \$700,000.00 without any credit losses. It hardly sounds possible even though the percentage of loan to valuation was not high. We didn't have any trouble at all in handling the 19 deals which went delinquent. Only one presented any particular difficulty and we are even working that one out. I don't know of any other retail industry that can boast of a better showing."

We often read about the "hazards" of home financing and it is probably true that under the old setup it may have been a ticklish proposition in certain areas but it surely would be difficult to convince this lumber dealer that it isn't the sweetest business in the world when conducted on the proper basis.—R.E.S.

"Proper Housing" in Portland

(Continued from page 109)

everything he wants in his home—and pay for it. We believe that people should know that each fireplace costs from \$100 up, that every dormer in the roof costs from \$50 to \$100, that a big

studio front window of leaded glass patterns costs at least \$25, that front doors of mahogany cost \$25 each, that mahogany finish in a room costs three times what fir trim costs, that oil burners cost from \$250 up to install, that party rooms in the basement add \$200 and up (without the bar), that two-car garages are double the cost of one-car garages, that overhead garage doors cost \$50 each to install with hardware, that real air conditioning complete costs \$600 at least (we do not mean just a fan forced air circulation with air filters, etc.). But we do know positively that the average family cannot afford all these additional costs in his home and still have sound construction of the very best materials and properly built with good living wages...

"Rowell Lumber Service are sponsoring these homes as demonstrations of possibilities of Proper Housing in the \$3,500 average price range; of proper planning, construction and best use of materials. All materials used are stock items at our yard, foot of East Madison Street. Designing and planning service is available at our office for anyone wishing the advice of competent, practical, experienced men. Plan book containing ten moderate priced Proper Homes will be mailed on written request to Rowell Lumber Service, Inc., 1406 S.E. Water Ave., Portland, Ore."

Approves TruCost "Break Downs"

Goldsboro, N. C.

To the Editor:

We would like to express to you our thanks for the very excellent method of quick estimating, as obtained using the TruCost method.

It is our belief that you now have the most logical method which could be used practically. Please let us continue to receive "break downs" in this manner.

Lowrimore and Helms.

NEW PACKAGES!



NEW PROFITS!

...when you're a TEXACO ROOFING DEALER!

In these three staples, Texaco Roofing Dealers everywhere are discovering *extra profits*.

Among the best selling arguments are (1) the *new packages*. Sturdy, good looking, long-wearing pails that (2) can be *kept and used for years afterwards*.

Getting down to fundamental, sales-clinching arguments: (3) The Texas Company is one of the largest producers of asphalt in the world. (4) These products are made in *one grade only—the best*, and (5) these products are made to sell at *one price only—the lowest*.

Ask your nearest Texaco Representative to tell you all about these three profit-making items—part of the Texaco "Short Line" to *higher net profits in good roofings*.



THE TEXAS
COMPANY

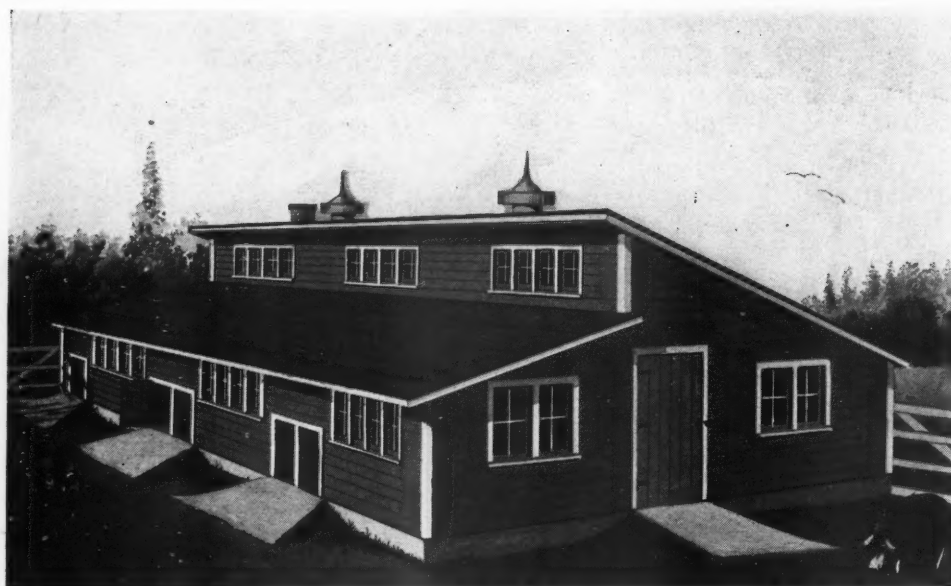
District Offices:

Atlanta, Ga.	Denver, Colo.
New Orleans, La.	Chicago, Ill.
Houston, Texas	Minneapolis, Minn.
Dallas, Texas	Indianapolis, Ind.
New York, N. Y.	(Indian Refining Company)
Norfolk, Va.	

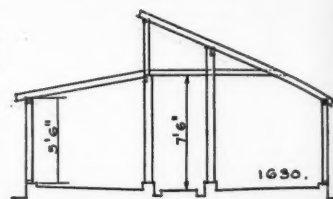
TEXACO "Short Line" ROOFINGS



ATTENTION: All Dealers! Are you cashing in on the FHA Texaco Monthly Payment Plan? All forms (including the new simplified Credit Form) are now available in convenient pocket-sized pads. Ask your Texaco Representative.



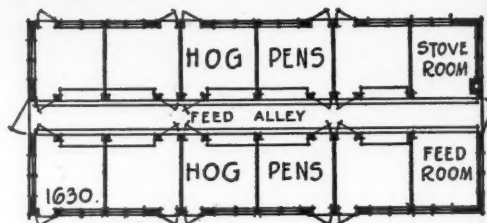
HALF monitor roof hog house, Design F-1630, from the National Plan Service, Inc., Chicago. This is an approved "sunshine" type of house.



CROSS SECTION

SIZE 20 FT. x 48 FT.

CAPACITY
10 Pens, Feed Room
and Stove Room



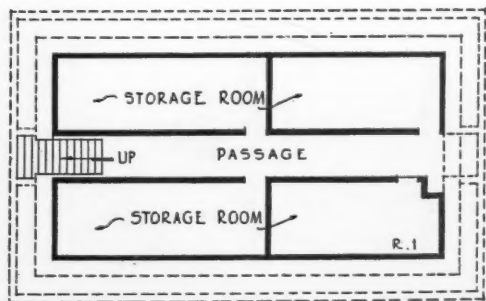
FLOOR PLAN

TWO UNUSUAL FARM BUILDINGS

Half Monitor Roof Hog House and Potato Storage Cellar Are Profit Making Buildings

ABOVE is a modern way which insures the sunlight and air. The walls are frame. For each pen there is in the south wall more than 10 square feet actual glass surface. Over one-sixth of the pen floor area is in the sunshine area from the south wall glass which means warmth and dryness without artificial heat. Besides the windows for ventilation aerators are placed in the roof. The pen floors are of concrete. The concrete foundation extends 12 inches above the grade. Frame side walls are 5 feet high.

Below is a practical method of retaining cool temperature by locating the storage house under ground. Large ventilating flues permit a rapid flow of air on cool nights. The outside main walls are 2 feet thick of stone. Surrounding the main wall is a retaining wall of 10 inch concrete with 2 feet of earth filled in between the walls. Concrete can be substituted for stone walls if preferred. A useful structure in which surplus produce is stored for future use. The ceiling is well insulated. Plans show all details of construction.



FLOOR PLAN

POTATO storage house, Design F-1730, from the National Plan Service.



How to have prospects PURSUE you

IT'S mighty pleasant to have business *come after* you. Dealers who are fully covered in Classified Telephone Directories actually have this experience. Here is what some of them say:

No. 1. "I have been able to trace much of my new business to the ad that I am now carrying in the directory."

No. 2. "We are just finishing our first six months of directory advertising in the Abilene directory, and wish to express ourselves as being very enthusiastic over the results."


No. 3. "We have carried the same advertisement for four years and are certainly pleased with it. A direct check of some of the results has been made from the calls received over the night number, which is published no other place except in this advertisement."

No. 4. "People who use our service locally depend upon the telephone book as a 'buyer's guide.' Another important benefit has been the business we have obtained from travelers who upon visiting a strange city consult the telephone book and are made to feel at home by discovering our trade mark listing awaiting them."

No. 5. "Many inquiries, rental and recharging requests originate by telephone and if you are properly represented in the classified telephone directory, these calls will be directed to you, rather than to your competitors."

Get your share of this trade. Advertise in the 'yellow pages,' at every classification of your business and under the brands you sell. Just call the Directory man at your telephone business office.



CLASSIFIED TELEPHONE DIRECTORY	
Air Conditioning GENERAL ELECTRIC AIR CONDITIONING  Equipment and complete systems for cooling and heating of homes, business buildings and industrial plants. Engineering surveys and estimates without obligation. "WHERE TO BUY IT" DEALER MELLENTHAL'S INC 1215-2d. MA In-0525 DISTRIBUTOR SEATTLE PLUMBING SUPPLY CO 590-1st S MA In-8787 HAWLEY HEATING CO 805 Aurora GA rfid-2660 HOLLAND FURNACE CO 1037-6th S. EL In-1172 Engineered Equipment Engineers 2815-5th. MA In-3964	Air Li Air Se
t. L In-6662 IL In-4911 EL In-4911 BA In-2400 WENT— NINE IA In-7485 STEMS— CE CO EL In-0677 .. EL In-4970 TION— ONDI— .. EL In-4970	

"Man Bites Dog" at Lieber's

LUMBER DEALERS at times have been known to be entertained by some of their good salesman friends,—in fact this is more or less of a practice, and sometimes accepted without a great deal of comment.

However, when a Lumber Dealer entertains his salesman friends then that is always real news, the "Man Bites Dog" kind.

The Lieber Lumber & Millwork Co., Neenah, Wisconsin, of which Otto Lieber, Jr., is President, held its Third Annual Peddlers' Party, honoring the salesman from whom it buys the major part of its building materials, on June 16th, this being the third annual.

The guests met at the Ridgeway Golf Club at 1:00 o'clock, and after finishing eighteen holes of golf adjourned to the Poinsetta Tavern for dinner.

During the dinner, President Lieber, in an address of welcome, expressed his appreciation of the splendid help and friendly cooperation rendered by both the salesman and manufacturers they represented. Each one present was introduced and presented with a gift by President Lieber, and each one responded with expressions of loyalty and good fellowship.

Bridge, Black-Jack, Seven Up and "Dealer's Choice" prevailed on and on 'til the close of the delightful evening.

The Invitation

Neenah, Wis., June 7, 1938

Dear Mr. Peddler:

We are holding our Third Annual Peddlers' Party

on Thursday, June 16th, and you are cordially invited to be with us.

This is just one day of the entire year when we want to really enjoy ourselves and forget price lists, markets, politics, budgets, etc.

We appreciate the help given us by the Peddlers who have called on us during the past year. We realize that they have rendered us a great service, and that the various companies they represent have been instrumental in helping us to enjoy a nice volume of business by giving us sales helps, ideas, price lists, etc., and we are happy to arrange this party to show our appreciation.

Will you please be at our office by 1:00 o'clock so that we can be at the Ridgeway Golf Course ready to tee off by 2:00. This will give us a little time for photographs, news reel and camera men and also give any of the celebrities an opportunity to make any statements they may wish to the Press, so that they may be quoted on any item of interest to their public.

This is our party—there is no cost to you. Just be here with your smiling face for an afternoon and evening of fun—that is all we ask. We'll take care of the rest. Hoping to see you on the 16th, we are,

Sincerely yours,

The Lumbermen at Liebers: Otto Lieber, Jr., Aksel Jorgensen, Emmett Wood, Steve Sommers, Arnie Kitchin, Fritz Miller.

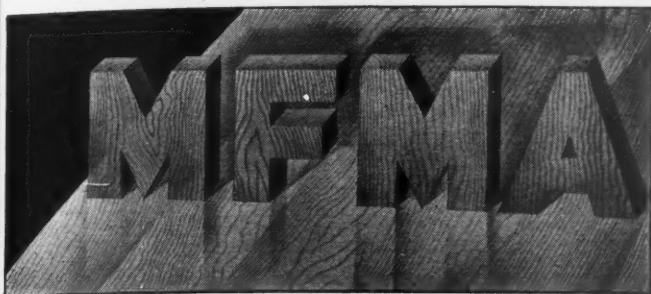


HAPPY SALESMEN at Lieber's Annual "Peddlers' Party," Neenah, June 16. Top Row: (Left to right) N. W. Frew, Milwaukee-Western Fuel Co., Milwaukee; Emerson Tremmel, Convertible Door Mfg. Co., Milwaukee; W. L. Wright, Long-Bell Lumber Co., Kansas City; Walter Finch, Johns-Manville, Milwaukee; H. J. Potts, Robt. Blackburn, Inc., Milwaukee; Aksel Jorgensen, The Lieber Lumber & Mlwk. Co., Neenah; Max Deitrichs, The Celotex Corp., Chicago; Otto Lieber, Jr., The Lieber Lumber & Mlwk. Co., Neenah; Emmett Wood, The Lieber Lumber & Mlwk. Co., Neenah; William Klass, Yawkey-Bissell Lumber Co., White Lake, Wis.

Bottom Row: E. H. Schellenger, Milwaukee-Western Fuel Co., Milwaukee; Paul Simpson, United States Gyp-

sum Co., Chicago; S. L. Stavrum, Wisconsin's Transfer Yard, Oshkosh; Frank Whitman, Universal Atlas Cement Co., Chicago; Les Buchman, Universal Atlas Cement Co., Chicago; George Schneider, Milcor Steel Co., Milwaukee; C. L. MacFadin, The Flinkote Co., Chicago; S. L. Fitzsimmons, Standard Varnish Works, Chicago; Henry Steinicker, Curtis Companies, Inc., Wausau; Wm. Ellmaker, Standard Manufacturing Co., Sterling, Ill.; S. A. Sommers, The Lieber Lbr. & Mlwk. Co., Neenah.

Additional men at party: Roy Dean, Central States Lumber Co., Janesville, Wis.; D. S. Montgomery, Sec'y., Wis. Retail Lumbermen's Club and H. P. McDermott, F. H. A., Milwaukee; Frank Schneider, James Schaefer, Arnold Kitchin, and Fred Miller, all of Lieber's.



STOCKING THIS NATIONALLY ADVERTISED FLOORING PAYS...

You know it's Northern Hard Maple when you stock trade-marked **MFMA** Maple Flooring, guaranteed to conform to exacting association grade standards. The following manufacturers are licensed to use the **MFMA** trademark:

Beck, August C. Co., Milwaukee, Wis.
Brown Dimension Co., Manistique, Mich.
Bruse, E. L. Co., Memphis, Tenn.
(Mill at Reed City, Mich.)
Conner Lumber & Land Co., Laona, Wis.
(Sales Office, Marshfield, Wis.)
Farrin Lumber Co., N. B., Cincinnati, O.
Holt Hardwood Co., Oconto, Wis.
Kerry & Hanson Flooring Co., Grayling, Mich.
Kneeland-Bigelow Co., Bay City, Mich.
Kneeland-McLurg Flooring Co., Phillips, Wis.
North Branch Flooring Co., Chicago, Ill.
Oval Wood Dish Corp., Tupper Lake, N. Y.
Robbins Flooring Co., Rhinelander, Wis.
Stephenson Company, L., Wells, Mich.
Wells, J. W. Lumber Co., Monominee, Mich.
Wisconsin Land & Lbr. Co., Hermansville, Mich.
Yawkey-Bissell Lumber Co., White Lake, Wis.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1781 McCormick Building, Chicago

Floor with Maple

(Northern Hard)

THE LONGEST-WEARING COMFORTABLE FLOOR



AIR CONDITIONED

of course—the largest area of modern hotel air conditioning is found in the world's largest hotel, where all the lobbies, dining rooms, meeting rooms, and a substantial number of guest rooms are air cooled — delightfully

STEVENS HOTEL CHICAGO

On Michigan Avenue
Overlooking Chicago's natural air conditioner —
Lake Michigan

SKILSAW SANDER

IS ACTUALLY

3 TOOLS IN ONE!



... SPEEDS UP
PRODUCTION ...
SAVES TIME
AND LABOR!

Produces a smooth, even finish, without ripples or ridges ... the modern electrical way ... easier, faster, cheaper! Just the thing for cleaning up sash, doors and frames before delivery—makes them ready for painting on the job. Removes scratches and stains from plywood panels; used for lining up glued joints and final finishing in sash and door manufacture. Compact, perfectly balanced. easy to use. Plugs into any light socket. THOUSANDS IN USE!

SKILSAW, INC.

Dept. A, 3314 ELSTON AVE., CHICAGO

214 E. 40th St., New York • 52 Brookline Ave., Boston • 1429 Spring Garden, Philadelphia • 1253 S. Flower St., Los Angeles • 2065 Webster St., Oakland



1
AS A PORTABLE SANDER—
Take it to the job, wherever it may be. Perfectly balanced and easy to handle



2
AS AN EDGE SANDER—
Used with the bench stand. It becomes an ideal edge sander for pieces too small for a portable tool



3
AS A SPINDLE SANDER—
Concave surfaces are sanded quickly and efficiently at front pulley of sander when used with bench stand.

FRAMES THAT SELL Themselves



We Manufacture

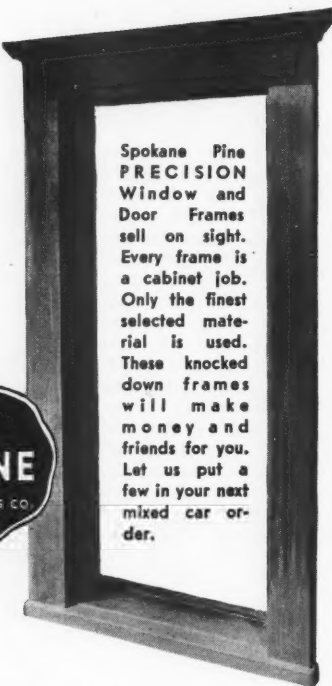
FRAMES— UNITRIM, PACTRIM,

Interior Trim—
paper wrapped
carton packed
mouldings—lath and regular lumber items. All our
lumber is smooth, double end trimmed and end
stamped.

SUPER MIXED CAR SERVICE
Write, Phone or Wire



LONG LAKE LUMBER CO.
SPOKANE PINE PRODUCTS CO.
SPOKANE, WASHINGTON



Real thrift in home maintenance begins when the plans are drawn and the specifications made. Foresight in the selection of materials insures economies in upkeep for years to come.

Today, architects and alert builders eliminate the risk of early depreciation by specifying Arrow Brand Tidewater Red Cypress for every point where wood meets weather. They use this true species of "The Wood Eternal" for such items as siding, exterior trim, door and window frames, and porch flooring.

And remember, because this versatile wood is preferred for such a wide variety of building purposes, both exterior and interior, the retail dealer benefits by diversified outlet the year round.

The Florida Louisiana Red Cypress Company with its five member mills is your most dependable source of supply for trade-marked and grade-marked Arrow Brand Cypress.

FLORIDA LOUISIANA RED CYPRESS COMPANY
Barnett National Bank Building Jacksonville, Florida

FREE Cement Offered for Demonstration Homes

"WE will invest in your community" was the title and solution of a big 3-color broadside which went out late in June to lumber and building material dealers from the Marquette Cement Manufacturing Co. It invited every local dealer to build a low-cost demonstration home in his community and offered assistance of a most unusual and substantial sort.

Quoting from this announcement:

"There is a tremendous potential market for new low-cost homes, but investigation throughout the Mississippi Valley reveals the fact that this class of construction is not nearly as active as it should be. Here are some of the reasons why:

1. People do not generally realize that a sturdy, livable home can be built at a price ranging from \$3,000 to \$5,000.

2. There is widespread belief that final cost is always much more than the original estimate, and low income groups cannot gamble on such higher costs.

3. "Model Homes" are usually fitted with expensive equipment and costly frills which raise final cost and discourage the prospective homeowner.

4. The generous provisions of long term, small monthly payment mortgages under F. H. A. are not generally understood by the public.

"These barriers to home construction could be removed if the people of your community could actually inspect a demonstration home that

(A) Sells for \$3,000 to \$5,000 (\$26.30 to \$43.87 per month).

(B) Is built on a "guaranteed price contract."

(C) Contains only the actual essentials of a good, comfortable home.

(D) Can be purchased on terms that approximate their current monthly rent."

The announcement then proceeded with this remarkable offer:

"We are so sure that a demonstration home of this type (\$3,000 to \$5,000) will start home building in your community that we will give you—FREE—all the Marquette Portland Cement needed to build one.

"You are the best judge of the home requirements of your community and consequently this offer is good, regardless of the type you select. It may be concrete, concrete block, frame, brick or brick veneer. If concrete block or brick are used we will add to this free offer the Marquette Masonry Cement required."

Again emphasizing the company's interest in promoting real low cost home building, the following restrictions or conditions to this free offer were set forth:

Final selling cost to be under \$5,000 (preferably closer to \$3,000).

Home must be thrown open for public inspection and advertised as a Demonstration Home for at least 30 days.

Construction must begin prior to October 31, 1938.

Offer covers only one home through each dealer and applies only to dealers who handle Marquette Cement.

The painted sign to be supplied is to be conspicuously displayed at the building site during construction and while the home is open for public inspection.

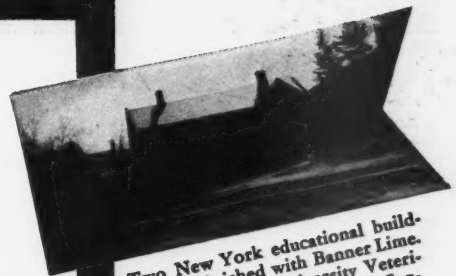
It is interesting and encouraging to this publication that the Marquette company has selected to illustrate this broadside three home designs that are really popular and of the type which dealers, builders and their customers are known to favor.

PUT NEW BUILDING OWNERS ON YOUR SALES FORCE

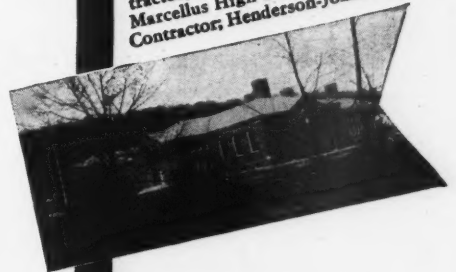
Owners, especially, appreciate the beauty, performance and durability of Banner Lime plaster and through their personal recommendations become a profitable source of business for you.

Banner Fibered Lime in base coats encourages good workmanship because of its plasticity. It is fire resistant, sound resistant and time resistant. When the lime sets, it returns to its original state—limestone—forming a veritable stone wall around every room.

Banner Finishing Lime for white coats gives smooth, level surfaces for plain or elaborate decoration. It permits the plasterer to do the kind of work of which he is proud and that owners and architects appreciate.



Two New York educational buildings just finished with Banner Lime. Above—Cornell University Veterinary Building—Plastering Contractor, J. G. Davis Co. Below—Marcellus High School—Plastering Contractor, Henderson-Johnson Co.



Banner Lime
FAMOUS OHIO DOLOMITE

NATIONAL MORTAR AND SUPPLY COMPANY
GRANT BUILDING • PITTSBURGH, PA.

More House for Your Money

By Elizabeth Gordon and Dorothy Ducas

The prospective home builder is given sound advice on everything of importance likely to come up for decision. Buying land, raising money, securing an architect, planning the house, selecting materials, insulation, weather-proofing, etc., are covered. There are lists of things not to forget, and advice on where to be economical and where only the best will do. 1937. 320 pages, 70 illus., 5 1/2 x 8 1/4, cloth, \$2.50.

Book Service Department

American Builder and Building Age
30 Church Street, New York, N. Y.

**THE FIRST YEAR—\$1,500,000
of PRECISION-BUILT HOMES!**

... Did you get your share?

NEW METHOD, using weatherproof Homasote Big Sheets up to 8' x 14', lets you reduce costs, build in 30 days, any type or any size of house. Write for book on *Precision-Built Homes* which gives complete details.

HOMASOTE COMPANY, TRENTON, NEW JERSEY

WEATHERPROOF
HOMASOTE
INSULATING
AND BUILDING BOARD

The Profitable Way to Sell Concrete



**JAEGER DUAL-SPEED
TRUCK MIXERS of Man-Ten
Long Life Steel**



Rear Lift Hoist Attachment

One-Man Chute Saves
Minutes Every Trip

Write for New Catalog
THE JAEGER MACHINE CO.
892 Dublin Avenue, Columbus, Ohio

NEW HELPS FOR DEALERS

Literature featuring new products and sales plans

The selected trade literature listed below may be obtained without charge by using the coupon, listing the numbers of the catalogs desired and mailing to American Builder, 105 W. Adams St., Chicago, or by writing on your dealer stationery to the manufacturers direct, in which case kindly mention this publication. This catalog and campaign review is an editorial feature for the convenience of our readers.—Editor, Dealer Distribution Section.

MODERNIZE THE GARAGE

209—"You Can Modernize Your Garage with Over-the-Top Door Equipment" is a clever little envelope stuffer to carry dealer's imprint, showing how the Frantz door equipment, "at surprisingly low cost," changes the old garage doors into the new easy-acting swing-up type. Dealers find this garage door set a ready seller.—FRANTZ MANUFACTURING CO., Sterling, Ill.

BRICK AND CONCRETE RESTORATION

210—Preservation of brick and concrete is the subject of a new 12-page illustrated treatise to promote the sale and use of Truscon StoneTex. Lumber and supply dealers appreciate that nothing is more important in the field of building maintenance than brick and concrete preservation. Building owners often are astonished to discover that the supposedly permanent brick, stone or concrete walls of their buildings are showing unmistakable signs of weathering, even of disintegration. Weather streaks, efflorescence, falling stucco and rust spots from reinforcing steel are sure indications that protection is needed. This new book, "Brick and Concrete Restoration," tells how this work is handled, giving specifications and before and after photographs of buildings rescued from disintegration.—TRUSCON LABORATORIES, Detroit, Mich.

IDEAL AIR-CELL INSULATION

211—Retail lumber and supply dealers will be interested in the new loose-leaf

portfolio described as a "work book" of insulation data including full information regarding H & D Ideal Air-Cell insulation, which consists of multiple layers of alternately flat and fluted pieces of tough paper board. This insulation material comes one inch thick, 96 inches long, and in widths to conform to standard building practices.—THE HINDE & DAUCH PAPER CO., Sandusky, O.

CORBIN HARDWARE

212—Two new Corbin hardware door sets are offered and illustrated in stylish little two-color folders, "Elmwood Design" and "St. John Design." They offer a pleasing touch of distinctiveness in the hardware for homes of moderate cost. Dealers are finding an increasing demand for merchandise of this type.—P. & F. CORBIN, New Britain, Conn.

QUIZ BOOK ON REARDON PRODUCTS

213—A new pocket-size volume which gives "all the answers" on water paints for jobbers, salesmen and retail clerks is offered. It is going to be a tough job to stump any store clerk who gets and uses one of these new Quiz books. It slips into the coat pocket, is spirally bound with the owner's name printed on the washable cover. Each section gives uses, application, capacity and advantages of a Reardon product; then full illustrated directions are given for preparing surfaces, mixing and working. Any retail paint salesman or jobber salesman handling the Reardon line can obtain one of these big little books with his name on the cover.—REARDON CO., 2200 N. 2nd St., St. Louis, Mo.

REX MOTO-MIXERS

214—"Pay Loads for '38" is a good title for the 42-page spirally bound data book on Rex Moto-Mixers and agitators, recently completed. It illustrates the outstanding features of Rex Moto-Mixers and Moto-Agitators, with their uses, construction details and specifications. An interesting map in the center of the book shows where all Rex Moto-Mixer fleets are located.—CHAIN BELT CO., Milwaukee, Wis.

TERMITES AND ROT

215—A valuable data book for warding off the ravages of termites and rot presents the results of a joint research program of the Du Pont Company and one of the leading wood preserving operators offering one of the most effective clean lumber treatments known to date. Dealers will be interested in this discussion, especially one phase of it which comes from the very practical angle of "What the Expert Knows about the Building Bogies—Termites and Rot."—E. I. DU PONT DE NEMOURS & CO., Wilmington, Del.

LUMINALL CASEIN PASTE PAINT

216—A new 4-page data sheet gives specifications for applying Luminall casein paste paint. A feature of this publication is that one page is devoted to the essential information about the paint, condensed in index form. The specifications are so arranged as to be easily located, whether in A.I.A. filing system or otherwise.—NATIONAL CHEMICAL & MFG. CO., 3617 S. May St., Chicago.

BOOK OF SUCCESSFUL FIRE-PLACES

217—The famous 64-page illustrated handbook on fireplaces and fireplace equipment has been revised and is available to dealers handling fireplace equipment or interested in the design and construction of homes calling for modern fireplaces. A quantity of good designs are included. The Heat Saver unit is illustrated and described in a special supplement entitled, "Make Your Fireplace a Real Heating Plant." Another section of this handbook is devoted to "outdoor fireplaces" and several designs are illustrated.—THE DONLEY BROTHERS CO., 13900 Miles Ave., Cleveland, Ohio.

American Builder,
105 W. Adams St.,
Chicago, Ill.

(Aug., Dealer, 1938)

Please have the following Catalogs listed in this issue sent me—

Numbers

Name

Street

City..... State.....

OCCUPATION*

*Please note that occupation must be stated if full service is to be given.

Shevlin Pine Sales Company

DISTRIBUTORS OF

SHEVLIN PINE

REG. U. S. PAT. OFF

EXECUTIVE OFFICE

900 First National Soo Line Building

MINNEAPOLIS, MINNESOTA

DISTRICT SALES OFFICES:

NEW YORK CHICAGO
1604 Graybar Bldg. 1863 LaSalle-Wacker Bldg.
Mohawk 4-9117 Central 9182

SAN FRANCISCO
1030 Monadnock Bldg.
Kearney 7041

SELLING THE PRODUCTS OF

*The McCloud River Lumber Co.
McCloud, California

Shevlin-Clarke Company, Limited
Fort Frances, Ontario

*The Shevlin-Hixon Company
Bend, Oregon

*Member of the Western Pine Association,
Portland, Oregon.

SPECIES

NORTHERN (Genuine) WHITE PINE
(PINUS STROBUS)

NORWAY OR RED PINE
(PINUS RESINOSA)

PONDEROSA PINE
(PINUS PONDEROSA)

SUGAR (Genuine White) PINE
(PINUS LAMBERTIANA)



SUPER INSULATION

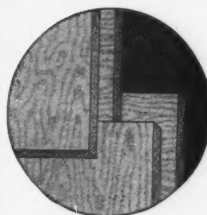
• You must insulate if you build in the modern way. So use Fir-Tex—the super insulating material—made from natural wood fibres, felted into solid boards with millions of air cells to protect against heat, cold and noise.

Use FIR-TEX for

INSULATION
PLASTER BASE
SHEATHING
INTERIOR FINISH

FIR-TEX

Dant & Russell, Inc.
Porter Building Portland, Oregon



The modern plywood siding . . .
economical to apply . . . proof
against all kinds of weather . . .
guaranteed against ply separation.

Harborside

THE SUPER-HARBORD SIDING

HARBOR PLYWOOD CORPORATION, Mills and Offices, Hoquiam, Washington

TRIMPAK

FINEST interior window and door trim.
Shipped in all woods. Grade—CLEAR
(as Webster defines the word). Manufacture
—perfect. Moisture content—8%. These
three qualities are guaranteed. Shipped in
cartons for your protection.

TRIMPAK CORPORATION
44 Whitehall Street New York City

BUILT TO PUT MORE PAY IN EVERY PAYLOAD

Arrange for an "on-the-job" test today

112-inch wheelbase Ford V-8 Commercial Cars

122-inch wheelbase One-ton Trucks

134-inch and 157-inch wheelbase Trucks

101-inch and 134-inch Cab-Over-Engine Trucks

FORD V-8 TRUCKS



PACIFIC MUTUAL DOOR CO.

① A NATIONAL ORGANIZATION

FOUR GREAT WAREHOUSES CARRYING

COMPLETE STOCKS OF

① DOORS

② PLYWOOD

③ FRAMES

④ MOULDINGS

⑤ SASH & GLASS

⑥ WALL BOARDS

① HOME OFFICE TACOMA, WASH.

② WAREHOUSE ST. PAUL, MINN.

③ WAREHOUSE CHICAGO, ILL.

④ WAREHOUSE KANSAS CITY, MO.

⑤ WAREHOUSE BROOKLYN, NY.

IDEALLY LOCATED
FOR ORDERLY, RAPID AND
ECONOMICAL DISTRIBUTION
TO THE LUMBER TRADES

CAR LOADS OR MIXED CARS

TACOMA.



DIRECT FROM THE FACTORY.

WASHINGTON.

COMPLETE INDEX TO ADVERTISERS

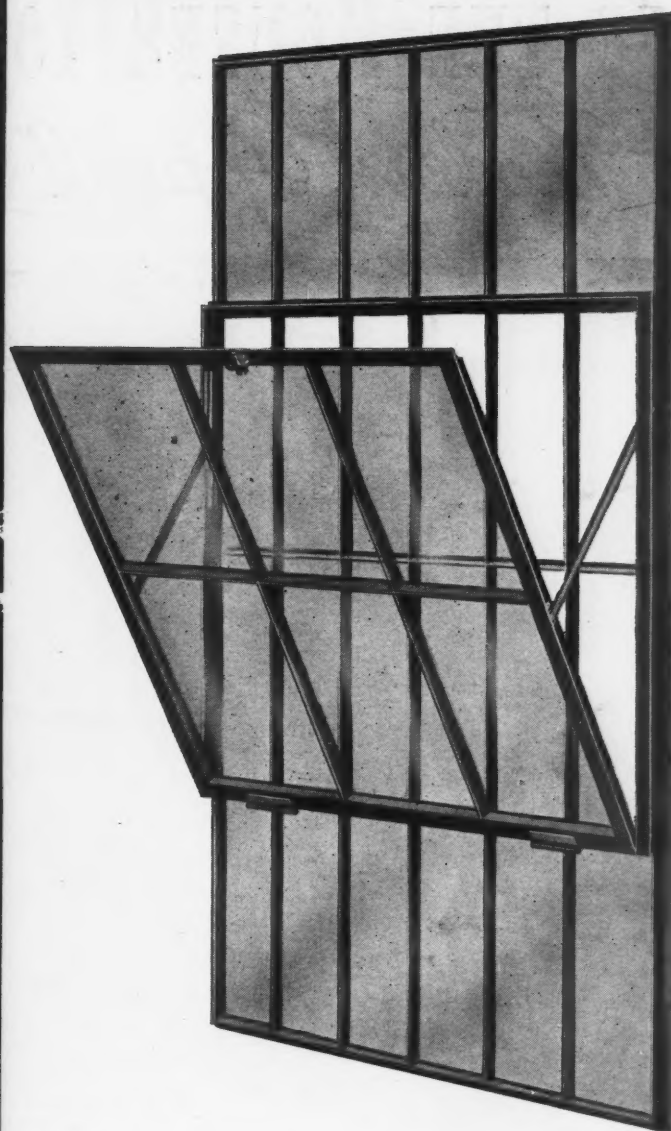
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NOTICE TO ADVERTISERS—Forms for the September number of the American Builder and Building Age will close promptly on August 15. New copy, changes, order for omissions of advertisements must reach our business office, 105 West Adams St., Chicago, not later than the above date. If new copy is not received by the 20th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts. AMERICAN BUILDER AND BUILDING AGE.

It's Open
BUT HE CAN'T
GET IN!



TRUSCON SECURITY WINDOWS KEEP HIM OUT

ON DUTY 24 hours a day...every day...
Truscon Security Windows perform a dual
service... protection against prowlers...
adequate ventilation. • Any building with
windows facing alleyways, courts and similar
places of "prowler popularity" should have
the adequate and low cost protection provid-
ed by Truscon Security Windows.



Eight types with glass size of 6" x 18" are
carried in stock for immediate shipment
anywhere in the nation. Special designs in
either 6" x 18" or 6" x 9" glass sizes or in spe-
cial glass sizes made to order promptly. • For
further details call the nearest of Truscon's 57
Sales-Engineering Offices or write direct to...

TRUSCON STEEL
COMPANY
YOUNGSTOWN • OHIO

GIVE THE HOUSES YOU BUILD THE

Modern Appeal of PC GLASS BLOCKS



Here's one popular use of PC Glass Blocks . . . to make stairwells brighter, better lighted, and better-looking. Use PC Blocks in the houses you build to give them modern appeal.

Distributed by

PITTSBURGH PLATE GLASS COMPANY

and by W. P. Fuller & Co. on the Pacific Coast

THE use of PC Glass Block panels immediately marks the houses you build as modern, smart, up-to-the-minute. And since glass block construction is so popular nowadays with clients and home-buying prospects, it invariably adds to the salability of your houses.

Panels of PC Blocks are not only gay, good-looking and attractive. They have practical advantages, too. They insulate against sound, making rooms quieter, more livable. They admit lots of cheerful daylight, but preserve privacy, too. They're easy to clean. They have high insulating value. They're non-absorbent. And they're perfectly at home in houses of every architectural style.

Send the coupon below for complete facts about PC Glass Blocks. It will bring you a helpful booklet . . . free. PC Glass Blocks are manufactured by Pittsburgh Corning Corporation, also makers of Carrara Structural Glass.



Pittsburgh Corning Corporation
2383A Grant Bldg., Pittsburgh, Pa.
Please send me, without obligation, your new book of facts about PC Glass Blocks entitled "The Glass Age Arrives."

Name _____
Street _____
City _____ State _____

Pittco Store Front Advertising Takes the First *Selling Step* for You

LIANCES SEELU'S

HERE'S another STORE FRONT
Compare it with the old

BUSINESS SLIPPING?
MAYBE YOU NEED A NEW STORE FRONT

A Pittco Store will put new life into your business. It attracts new customers and managers all over the country. It naturally draws more business and higher profits. It shows up your business in your neighborhood. It gives you a new look. It's almost invariably the balance of the income.

Send the coupon now for our free actual Pittco jobs - tells what real store fronts do. Shows what they cost. The Pittsburgh Time Payment Plan gives you two years to pay down the balance of the cost.

And don't fail to see the Store Front Exhibition when it starts way - our local branch will show you the specific time and place.

Pittsburgh Plate Glass Company
2388A Grant Bldg., Pittsburgh, Pa.
Please send me, without obligation, your new book entitled "Producing Bigger Profits with Pittco Store Fronts."

Name _____
Street _____
City _____ State _____

Your store front prospects can't miss Pittco advertising. They see it . . . and read it . . . in their favorite trade journals. And the number of Pittco Fronts being installed throughout the country, makes it apparent that this advertising results in quick action that leads to sales.

PITTCO advertising goes ahead of you to visit your store front prospects . . . to sell them on Pittco modernization. It proves how remodeling with Pittco Products builds business, improves property appearance and increases revenue, and paves the way for bigger profits for you. It appears in 32 favorite business papers; opens the eyes of architects, retail merchants, property owners and building managers - right in your community - to the

many advantages Pittco modernization holds for them.

Make Pittco advertising work for you. Use Pittco Products in your store front work to capitalize on the widespread consumer preference this advertising has built up over the past 4 years . . . to insure better jobs.

May we send you our store front brochure? It's packed full of interesting, informative store front facts . . . and it's free. Mail the coupon now for your copy.

PITTCO
STORE FRONTS
glass...metal...paint

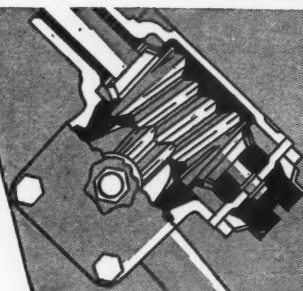
Pittsburgh Plate Glass Company,
2388A Grant Bldg., Pittsburgh, Pa.

Please send me, without obligation, your new book entitled "Producing Bigger Profits with Pittco Store Fronts."

Name _____
Street _____
City _____ State _____

PITTSBURGH PLATE GLASS COMPANY

A FORD TRUCK IS GREATER THAN THE SUM OF ITS PARTS

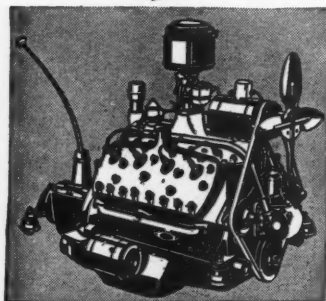


For easier driving and parking—worm and roller type steering.



Full-floating rear axle relieves the axle shafts of supporting the weight of chassis and body.

—BUT LOOK AT SOME OF ITS PARTS!



V-type 8-cylinder engine—still rolling up records for performance and economy.



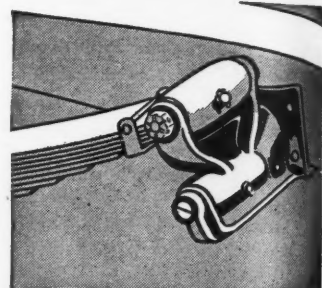
New welded all-steel cab gives extra strength, safety, comfort. 3 inches more head room.

Some truck buyers like to go over a unit part by part, and judge it on "points." A few of the features of the 1938 Ford V-8 Truck are shown here. Some are interesting because they are new improvements. Some are time-proved features which continue to be newsworthy because they represent the type of expensive design and construction which Ford is able to offer at low cost.

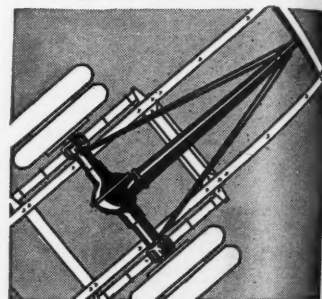
But—a Ford Truck is greater than the sum of all its parts. Into each truck goes the experience gained in 21 years of truck-building leadership. Back of each truck is the constant Ford ideal—to build strong, lightweight trucks that put MORE PAY IN EVERY PAYLOAD. And with each truck go the time-and-money-saving advantages of the Ford Engine and Parts Exchange Plan.

You get value far beyond its price when you get a Ford V-8.

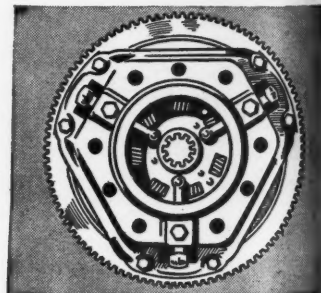
FORD V-8 TRUCKS AND COMMERCIAL CARS



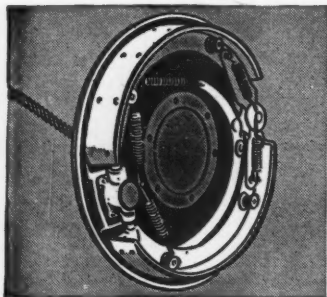
Rear springs are free-shackled at both ends. An earmark of top-quality truck construction.



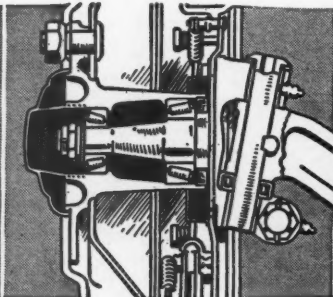
Full torque-tube drive relieves springs of driving and braking stresses.



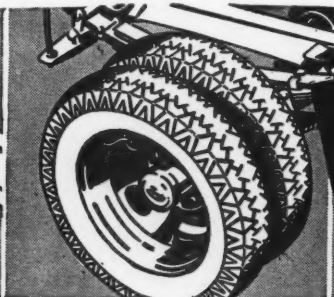
Centri-force Clutch. One of the most efficient, most reliable truck clutches ever built.



New bigger brakes—less pedal pressure—safety of steel from pedal to wheel.



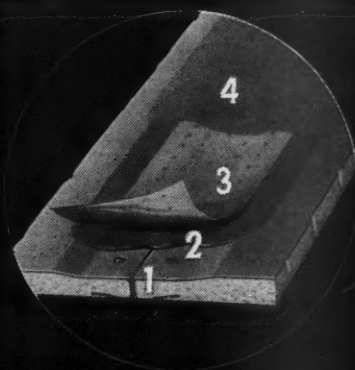
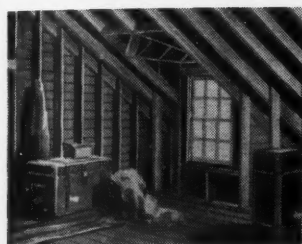
Larger spindles equipped with larger spindle bolts increase the safety factor.



7.50-20 dual tire and wheel equipment is now available at slight extra cost.

ARRANGE
FOR AN
"ON-THE-JOB"
TEST

Joints are **HIDDEN** in walls built of Recessed Edge **SHEETROCK** and Perf-A-Tape THE FIREPROOF WALLBOARD



HERE'S HOW IT'S DONE

- 1 When sheets are nailed in place the recessed edge forms a channel at joints.
- 2 This channel is filled with a special cement, which is easily applied.
- 3 Perf-A-Tape, a patented, strong, perforated fiber tape with chamfered edges, is embedded in the cement.
- 4 Cement is applied over Perf-A-Tape, leveled and sandpapered evenly, completely concealing the joint and assuring a smooth surface for decoration.



Here's a new business for aggressive contractors and builders—hiding joints in wallboard walls and ceilings with Recessed Edge Sheetrock* and Perf-A-Tape*.

Every day, more and more contractors are discovering that this new method of wallboard construction is landing them fat repair and remodeling jobs.

Your customers will like Recessed Edge Sheetrock and Perf-A-Tape construction. For with it, joint reinforcement is really *hidden* within the thickness of the board itself.

That makes possible strong, smooth walls that are a suitable base for any kind of decoration—paint, wallpaper or texturing. In addition, you're giving these customers added fire protection—for Sheetrock is the Fireproof Wallboard.

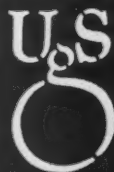
If you're not familiar with Recessed Edge Sheetrock and Perf-A-Tape construction, USG will gladly explain it to you. The present remodeling and repair market offers too many profit possibilities to pass up any bets.

Send the coupon below for the big, FREE, 48-page Sheetrock book, illustrated in full color. It gives details of Sheetrock application and suggests dozens of places your customers might use it.

United States Gypsum Company
 300 WEST ADAMS ST. CHICAGO, ILLINOIS

PLASTERS . . . ROCKLATH* . . . METAL LATH
 SHEETROCK* . . . FIBER WALLBOARD . . . SHEATH-
 ING . . . INSULATING BOARD . . . INSULATING WOOL
 ACOUSTICAL MATERIALS . . . PAINT PRODUCTS
 STEEL PRODUCTS . . . ROOFING PRODUCTS
 . . . SIDING PRODUCTS . . . LIME PRODUCTS.

*Registered trade-marks



UNITED STATES GYPSUM COMPANY
 300 West Adams Street, Chicago, Ill.

Please send me the Sheetrock book and instructions on application.

Name.....

Address.....

City.....State.....

AB-8

IN YOUR DAILY WORK

Use all three—



Lehigh Normal Cement was used exclusively in the construction of this monolithic concrete building for Service Transfer & Storage Co., La Crosse, Wis. It is a splendid example of concrete as the medium for architectural beauty. Contractor, Theodore J. Molzahn, La Crosse, Wis. Lehigh Cement was furnished by North La Crosse Lumber Co., La Crosse, Wisconsin.

Lehigh Normal Cement

For any use of cement where normal curing time may be allowed, get the dependability of this old established product. Its high uniform quality makes it adaptable for any type of work. Its uniform color makes it especially desirable where architectural beauty is important.



Because Lehigh Early Strength Cement was used for quick service concrete for the floor and wheel guard of this Union County Bridge near West Milton, Pa., 15 days were saved in construction time. The contractor estimated this time saving reduced overhead expense alone by \$150.00. In addition, because the concrete was poured in cold weather, heat protection costs were negligible. Contractor, John A. Starr, Herndon, Pa. Engineer, Walter E. Frick, Lewisburg, Pa. Lehigh Early Strength Cement was furnished by C. Dreisbach's Sons, Lewisburg, Pa.

Lehigh Early Strength Cement

Where quick service concrete is desirable for time and money saving advantages, use Lehigh Early Strength Cement. Compared with normal portland cement used under the same conditions, it cures to service strength in 24 to 48 hours instead of 7 days. It makes concrete of maximum density and plasticity.



"This is the most plastic and workable mortar our men have ever used. In the future we will use it exclusively," said Mr. Dedie of the Dedie Construction Company, in referring to the use of Lehigh Mortar Cement for the brick work at Cedar Sinclair Refining Co. Service Station at Cedar Rapids, Ia. Lehigh Mortar Cement was furnished by The Builders Material, Inc., Cedar Rapids, Ia.

Lehigh Mortar Cement

For laying up any type of masonry unit it makes the ideal mortar. With only sand and water to add, there is less work at the mortar box. Lehigh Mortar Cement meets the requirements of Federal Specification SS-C-181 b, Type II. It has extreme plasticity, high water retention, strong bond, adhesiveness, minimum shrinkage, and water repellency. Use it for economy, speed and dependable performance.

The Lehigh Service Department will welcome inquiries pertaining to the specific use of any Lehigh product. Informative literature will be sent on request.

LEHIGH PORTLAND CEMENT COMPANY
Allentown, Pa., Chicago, Ill., Spokane, Wash.

Get Ready for Winter!

MODERNIZE YOUR GARAGE NOW WITH

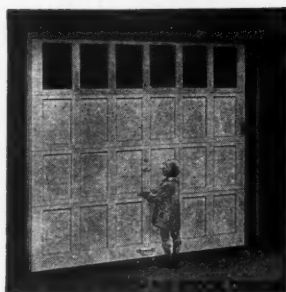
The



THE DOOR WITH THE

MIRACLE WEDGE

Wedges Tightly



YET



Opens Easily

EVEN A CHILD CAN OPERATE IT

Manufactured by Overhead Door Corporation, Hartford City, Indiana
BACKED BY A NATION-WIDE SALES INSTALLATION SERVICE

CLIP THIS COUPON *Today!*

For further
information--
See coupon.

MADE IN ANY SIZE FOR ANY OPENING, ELECTRIC OR HAND OPERATION

Please send me literature and full information regarding your product. I am interested in doors for the particular purpose as checked.

Name _____

Address _____

City _____ State _____

- Private Garage _____
- Public Garage _____
- Warehouse _____
- Filling Station _____
- Wood Doors _____
- Steel Doors _____
- Factory Doors _____
- Other Buildings _____
- Electric Controls _____

AB-938

OVERHEAD DOOR CORPORATION • HARTFORD CITY, INDIANA U.S.A.

● Here is another attention-arresting advertisement that will **STIMULATE YOUR SALES OF SASH**. It is one of an appealing series appearing in such widely read publications as *The Saturday Evening Post*... *Collier's*... *Good Housekeeping*... *American Home*... *Better Homes & Gardens*... *House & Garden*... *House Beautiful*... *Parents' Magazine*.

"IT'S ALWAYS
FAIR WEATHER..."
IN A
*Window
Conditioned*
HOME

● Winter's coming—just three short months away—but if you "Window Condition" your home now you will enjoy "Fair Weather" inside all winter long and save money, too. This means that you insulate your windows with double-glazed sash or storm windows. Between the two pieces of glass, a wall of captive air is formed. This air space is a most effective form of insulation. Reliable tests show that fuel bills can be cut as much as 30%—a greater reduction than can be obtained from any other single form of house insulation. In winter-air-conditioned homes, the annoyance of foggy windows. Without "Window Conditioning", moisture will collect on the windows, damage draperies, woodwork and rugs. With "Window Conditioning", doctor's bills are reduced because homes are relieved of drafty danger zones.

The cost of storm sash is low. The nearest lumber dealer will be glad to explain financing under F.H.A. with no down payment. Fuel savings can pay the cost in less than two winters. If you are planning to build a new home, ask your architect about the many new double-glazed "Window Conditioning" units.

Quality Glass Is Important—With double glazing, the quality of the glass is doubly important since you are looking through two pieces of glass instead of one. Because of an exclusive manufacturing process, L-O-F Window Glass is noted for its greater freedom from waviness and distortion, making it especially suited to "Window Conditioning". These advantages cost you no more. Whether you buy winter windows or double-glazed sash, make sure that each light bears the L-O-F label. It is your guarantee of quality in window glass.

LIBBEY · OWENS · FORD
QUALITY GLASS
LOOK FOR THE LABEL

12,000,000
owners of homes

with central heating plants—they surround you on every side—are prospects for L-O-F "Window Conditioning." And that means hundreds of live prospects right in your vicinity for storm sash and storm doors. Continuous L-O-F advertising plus nationwide publicity, plus a cooperative selling plan* that has joined lumber dealers and heating contractors, have brought the comforts and economies of "Window Conditioning" prominently to the front in

the public mind. A receptive market has been prepared for YOU but only YOU can get the ORDERS... Start your active solicitations NOW. Winter is not far away... Libbey-Owens-Ford Glass Company, Toledo.

LIBBEY · OWENS · FORD
QUALITY GLASS

*If you have not been advised of this comprehensive plan, write for complete details today.



**WINDOW
CONDITIONING**
(DOUBLE-GLASS INSULATION)
PAYS FOR ITSELF

YOUR NEW HOME
If you are building a new home, ask your architect or builder about the many efficient types and attractive styles of storm windows and double-glazed sash available for "Window Conditioning."

YOUR PRESENT HOME
Now learn the comfort and saving of "Window Conditioning." Storm windows are easy to install and longer-lasting than any other type of window. Ask your lumber dealer for more information.

- You insulate your windows by applying double-glazed sash or modern winter windows of L-O-F Quality Glass. Here's what "Window Conditioning" does for you:
1. Gives you greater comfort—better health.
 2. Cuts fuel bills 20 to 30%.
 3. Saves you more than any other single form of house insulation.
 4. Makes uniform temperatures easier to maintain throughout the house.
 5. Lessens drafty danger zones near windows and doors.
 6. Makes healthful humidity possible with out-foggy windows, saved draperies and moisture on window sills.
 7. Reduces cleaner's bills and doctor's bills.
 8. Fuel savings help pay for a modern heating plant.
 9. "Window Conditioning" is a sound investment—fuel savings alone can pay for it in less than two winters. Dividends continue year after year. Financed under F.H.A.—no down payment.

A good reason for the L-O-F Quality Glass Company is that it is the only company in the world that makes "Window Conditioning" units in every size and shape for every type of window.

LIBBEY-OWENS-FORD GLASS COMPANY, TOLEDO, O.
Please send me your free book which shows the many advantages of "Window Conditioning" and how to finance it under F.H.A. plans. I am interested in window conditioning.

Name _____

Address _____

City _____

State _____

Zip _____

Send me this book ☐ and I will send you \$1.00 ☐

FREE!

EFFICIENT

**Stops Heat Losses
at Every Point**

KIMSUL Expanding Blanket INSULATION

EXPANDABLE CUTS LABOR COSTS

● Kimsul is delivered in fiber cartons containing 24 blankets one inch thick, in widths to fit standard stud openings. At time of installation each 20" length is first nailed on at the top, then expanded the full length of the studs (as shown below), providing a continuous, efficient heat barrier from top to bottom. *This speeds up and lessens installing costs.*

NAIL ON AT TOP



PULL DOWN LIKE A
SHADE AND FLUFF



● Made of wood fibers

whose natural resistance to heat is increased by interweaving, creping and laminating — Kimsul "K" factor of .27 ranks it as one of the most efficient insulating materials known.

Kimsul blankets are made the correct width to fit snug into standard spaces between studs. Pliant as cloth, they likewise fit snugly around door and window frames and into irregular spaces. Thus even those openings so often neglected are provided with adequate protection.

Kimsul is now being Regularly Advertised in "Better Homes & Gardens" and "American Home," having a combined circulation of more than 3 million copies monthly. If you haven't all the facts about this modern insulation, use the coupon below.

**See that the Insulation you choose meets
all these requirements**

- 1 **EFFICIENCY:** Kimsul is made of wood fibers, their natural high resistance to heat increased by interweaving, creping and laminating.
- 2 **FLEXIBILITY:** Kimsul fits snugly. It can be tuckered into odd spaces, around windows, electric wires, pipes, etc.
- 3 **PERMANENCE:** Kimsul is highly resistant to fire, vermin and moisture.
- 4 **NON-SETTLING:** Kimsul stays put. Leaves no unprotected spots; will not shred, sift or settle.
- 5 **LIGHTNESS:** 1,000 sq. ft. of Kimsul only weigh 131.5 lbs. It adds practically nothing to the structural load.
- 6 **PROPER THICKNESS:** One-inch Kimsul provides maximum comfort and fuel savings for the investment.
- 7 **NO WASTE:** Every square inch usable.
- 8 **EASE OF HANDLING AND INSTALLING:** Practically no cutting or taping when installing Kimsul.
- 9 **EXPANDABILITY:** Kimsul speeds work and reduces installation cost.

*Reg. U. S. & Can. Pat. Off.

KIMBERLY-CLARK CORPORATION (Kimsul Division), Neenah, Wisconsin
Established 1872

NEW YORK, 122 East 42nd Street • CHICAGO, 8 South Michigan Avenue

Mail me, without obligation, copy of booklet describing Kimsul, also a full sized sample.

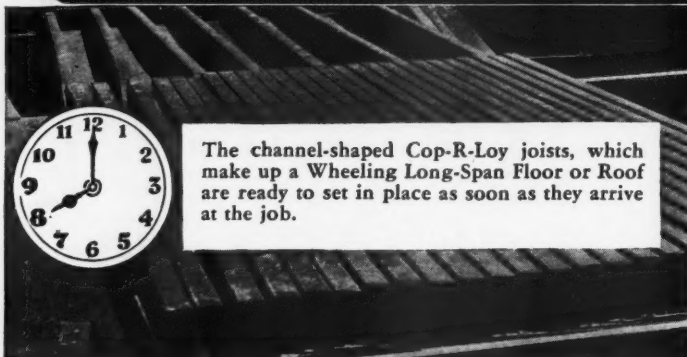
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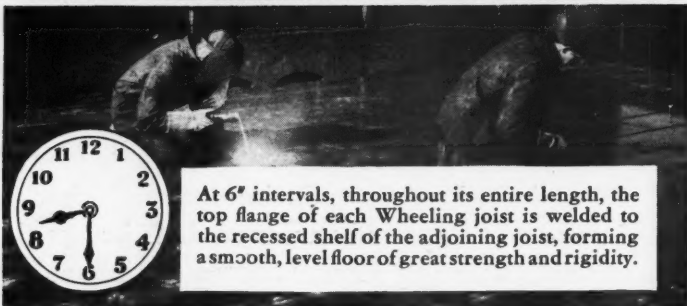
City _____ State _____

AB9

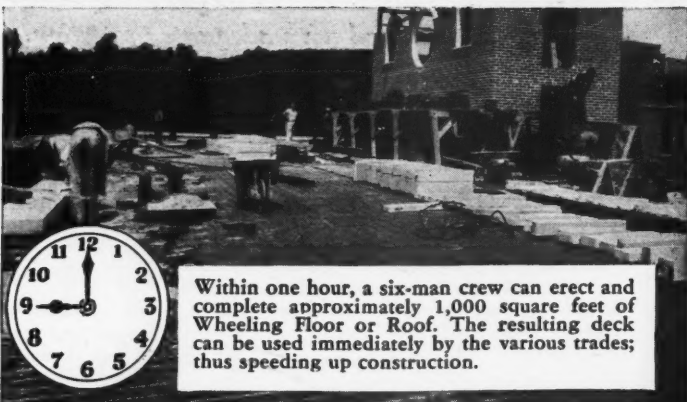
NEW *Quickly Erected* FLOOR AND ROOF SYSTEM



The channel-shaped Cop-R-Loy joists, which make up a Wheeling Long-Span Floor or Roof are ready to set in place as soon as they arrive at the job.



At 6" intervals, throughout its entire length, the top flange of each Wheeling joist is welded to the recessed shelf of the adjoining joist, forming a smooth, level floor of great strength and rigidity.



Within one hour, a six-man crew can erect and complete approximately 1,000 square feet of Wheeling Floor or Roof. The resulting deck can be used immediately by the various trades; thus speeding up construction.

**IS READY
IN MINUTES
instead of Days!**

Masons, steamfitters, plumbers and electricians can start roughing in immediately after a Wheeling Long-Span steel floor or roof is laid. No delays waiting for concrete to set! No mess to clean up. No dangerous wood planking. The completed Wheeling floor or roof provides a smooth level platform on which men can work unhampered. You finish sooner and have more time for other jobs. Your customer gets a better job and saves money too. Get the facts today on



LONG-SPAN

STEEL FLOOR AND ROOF SYSTEM

NEW YORK
CHICAGO
BUFFALO

ST. LOUIS
PHILADELPHIA
LOUISVILLE

WHEELING CORRUGATING CO.
WHEELING, WEST VIRGINIA

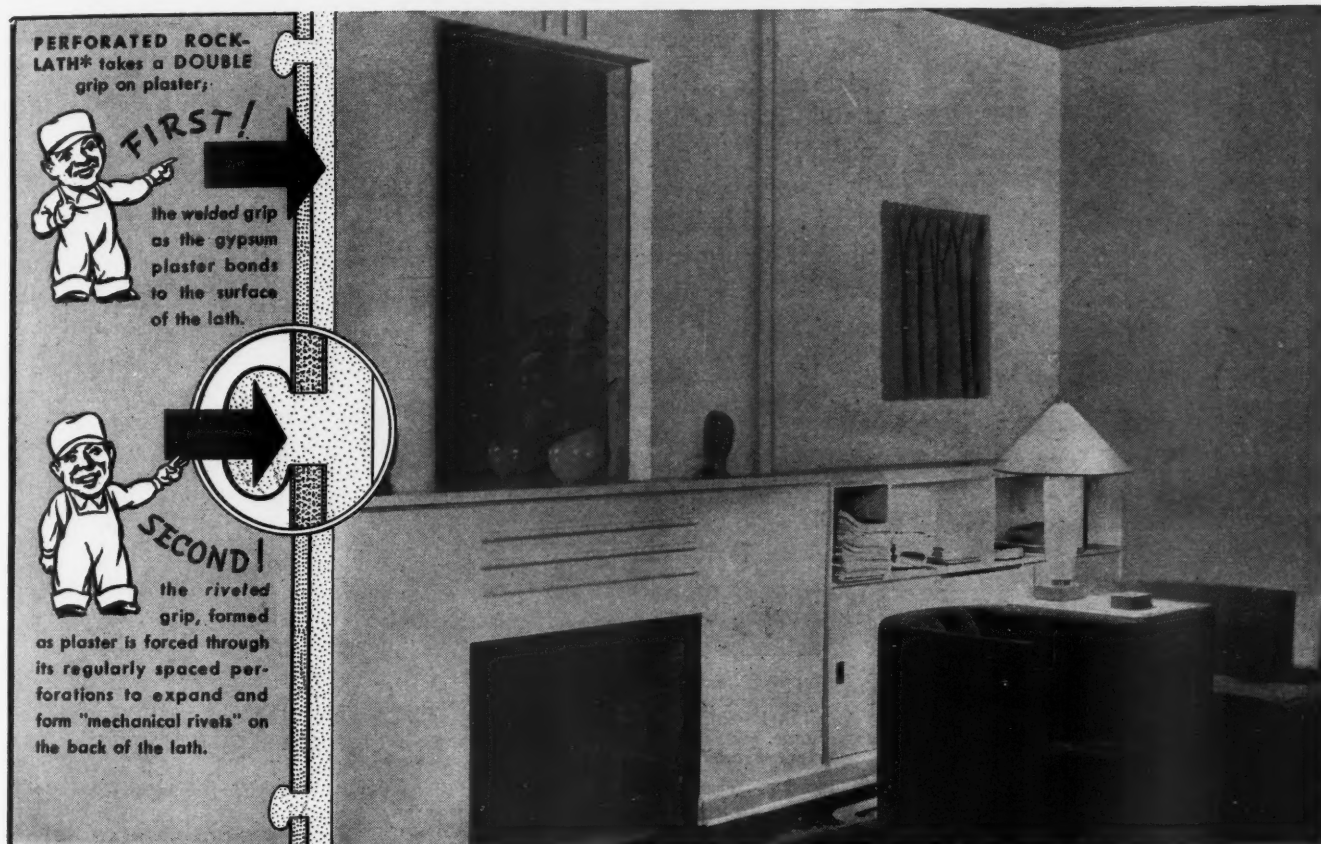
KANSAS CITY
ATLANTA
COLUMBUS, O.

MINNEAPOLIS
RICHMOND
DETROIT

Plaster is **WELDED AND RIVETED** to walls
when applied over

Perforated Rocklath

THE FIREPROOF LATH



WELDED and **Riveted**—two simple words that tell why *Perforated Rocklath** walls are better walls—in a way your customers can understand. With Perforated Rocklath, USG has given you a lath that not only *builds good walls* but *builds good will*.

With it you can erect walls that, when plastered, are so smooth and regular, that your customers will realize that plastered walls are the finest walls—and will consider nothing else.

United States Gypsum Company
300 WEST ADAMS ST. CHICAGO, ILLINOIS

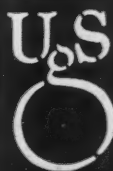
Here's another important point—with Perforated Rocklath you are giving added fire protection. USG tests, made at the Bureau of Standards, qualify partitions made of Perforated Rocklath and plastered with one-half inch of gypsum plaster for a one-hour fire rating.

An attractive circular telling the complete story of Perforated Rocklath—the Fireproof Lath—that you can distribute to prospects—is **FREE** to you. Write the United States Gypsum Company, 300 West Adams Street, Chicago, Illinois, for your supply today. Use them to help you get business.

Sales Offices at:

Atlanta, Ga.	Baltimore, Md.	Birmingham, Ala.
Boston, Mass.	Buffalo, N. Y.	Cincinnati, Ohio
Cleveland, Ohio	Dallas, Tex.	Denver, Colo.
Detroit, Mich.	Houston, Tex.	Indianapolis, Ind.
Kansas City, Mo.	Los Angeles, Cal.	Milwaukee, Wis.
Minneapolis, Minn.	New York, N. Y.	Omaha, Neb.
Philadelphia, Pa.	Pittsburgh, Pa.	Portland, Ore.
St. Louis, Mo.	San Francisco, Cal.	Washington, D. C.

*Registered trade-marks



UNITED STATES GYPSUM COMPANY
300 West Adams Street, Chicago, Ill.

Please send the Perforated Rocklath circular containing information on wall construction.

Name

Address

City State

AB-9

For satisfactory heat in the homes you build *use your* Heating Contractor's HEATING SERVICE

4 WAY



● Two things are necessary to assure complete heating satisfaction in the homes you build—good equipment PLUS a good installation. The only dependable source for both is the Heating Contractor. His careful workmanship is the best possible insurance against customer complaint. Here is what the 4-Way Heating Service means to you:



1 Thermal survey of the home—Your Heating Contractor has the knowledge and experience to make a technical survey of heating requirements—to determine heat losses, and hence to calculate the exact amount of heat needed.



2 Specification of materials—The Heating Contractor has the wide experience to specify exactly the right heating equipment and materials for any home. He recommends the materials and equipment *that will do the best job.*



3 Certified installation—The Heating Contractor backs up his installation with the broadest possible guarantee of good workmanship. His responsibility, his integrity, are your safeguard.



4 Skilled neighborhood service—Your Heating Contractor is a part of the community—always ready with skillful service should the heating system require special adjustment or attention.

CRANE COMPLETE HEATING

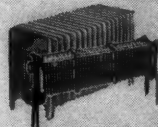
Crane offers through the Heating Contractor, Complete Automatic Heating—every part designed to fit the system—all carrying the name Crane.



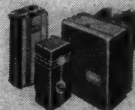
Crane Boilers for Coal, Oil or Gas—automatic or hand-firing



Crane Autocool Stoker



Crane Radiators and Convectors



Crane Controls



Crane Valves, Fittings and Piping

CRANE

HEATING • VALVES • FITTINGS • PIPE • PLUMBING • PUMPS

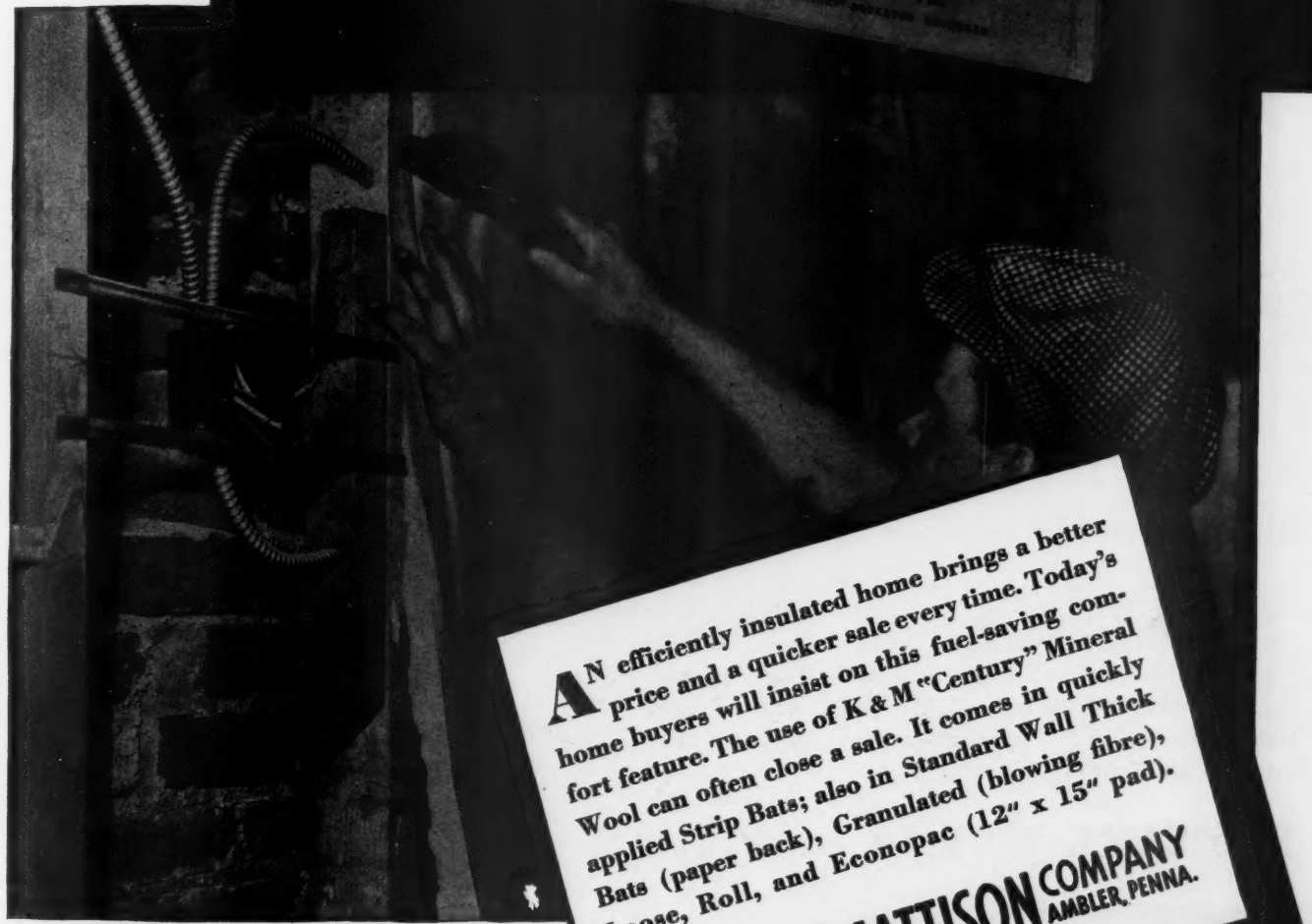
CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE.
CHICAGO, ILLINOIS

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALE-
SALE, PLUMBING AND HEATING CONTRACTORS



BE SURE YOUR HEATING
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MINERAL WOOL



AN efficiently insulated home brings a better price and a quicker sale every time. Today's home buyers will insist on this fuel-saving comfort feature. The use of K & M "Century" Mineral Wool can often close a sale. It comes in quickly applied Strip Bats; also in Standard Wall Thick Bats (paper back), Granulated (blowing fibre), Loose, Roll, and Econopac (12" x 15" pad).

KEASBEY & MATTISON COMPANY
AMBLER, PENNA.

Showing the easy application of K & M Strip Bats. They are backed with heavy moisture-proof paper which projects to form a nailing strip, as well as an overlapping moisture-proof barrier. As efficient to install as they are to use.

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- Asbestos Roofing and Siding Shingles
- Asbestos Flexible Wallboard (Sheetflexos)
- Asbestos-Cement Structural Board and Sheathing (Linabestos)
- Asbestos Decorative Walltile
- K & M Mineral Wool Insulations for the home

Underline the products on which you want data and mail this coupon today.

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CHOSEN FOR NATION'S *Pace-Setting* HOMES BALSAM-WOOL Sealed Insulation



R. G. BENT, Builder A. RAYMOND ELLIS, Architect, Hartford, Connecticut

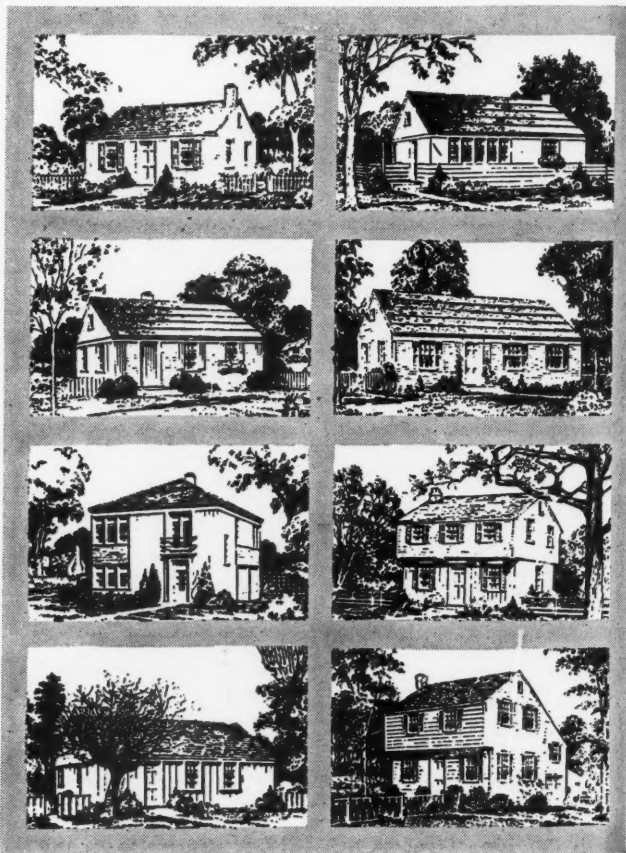
● These two outstanding model home developments are the BIG NEWS of the building industry today—the 8 SMALL HOMES DEMONSTRATION at Washington, D. C., and the first ALL GAS HOME at Hartford, Connecticut. They are introducing a new conception of comfort and economy—setting a home-planning and construction pace for the country. Because of their importance, each product used has undergone rigid scrutiny before approval. Because quality was a deciding factor in selecting materials, Balsam-Wool SEALED Insulation was chosen for both the low-cost and the elaborate home.

▲ In the New "All Gas Home" Construction Competition

Heralded as one of the world's "easiest-to-keep" houses, this ALL GAS HOME at Hartford, Connecticut is receiving nation-wide attention. It is the first home to be completed in the American Gas Association Competition. Architect, A. Raymond Ellis, and builder, R. G. Bent, with the approval of gas heating authorities, specified and used Balsam-Wool in this home, assuring that the gas heating unit would function at highest efficiency and with greatest economy.

Nation's Top Model Homes → Show Way to Low-Cost Housing

Built by the National Lumber Manufacturers Association and the National Retail Lumber Dealers Association, these eight small homes in Washington, D. C. are demonstrating to the building industry that the comfort and savings effected by insulation are available for all homes regardless of price. Here, too, quality is important—Balsam-Wool has been used in each of the eight homes.



The SURE WAY to Insulate



Balsam-Wool stays efficient as long as the house stands—it provides the important moisture barrier which today's construction demands—it is water-proof, wind-proof, termite-proofed, rot-proofed and highly fire-resistant. With its three thicknesses, it fits every climate and pocketbook—and a new method of application

cuts application costs 50%. Let us give you complete information about Balsam-Wool—the SURE way to insulate.

WOOD CONVERSION COMPANY

ROOM 119-9, FIRST NATIONAL BANK BLDG., ST. PAUL, MINN.



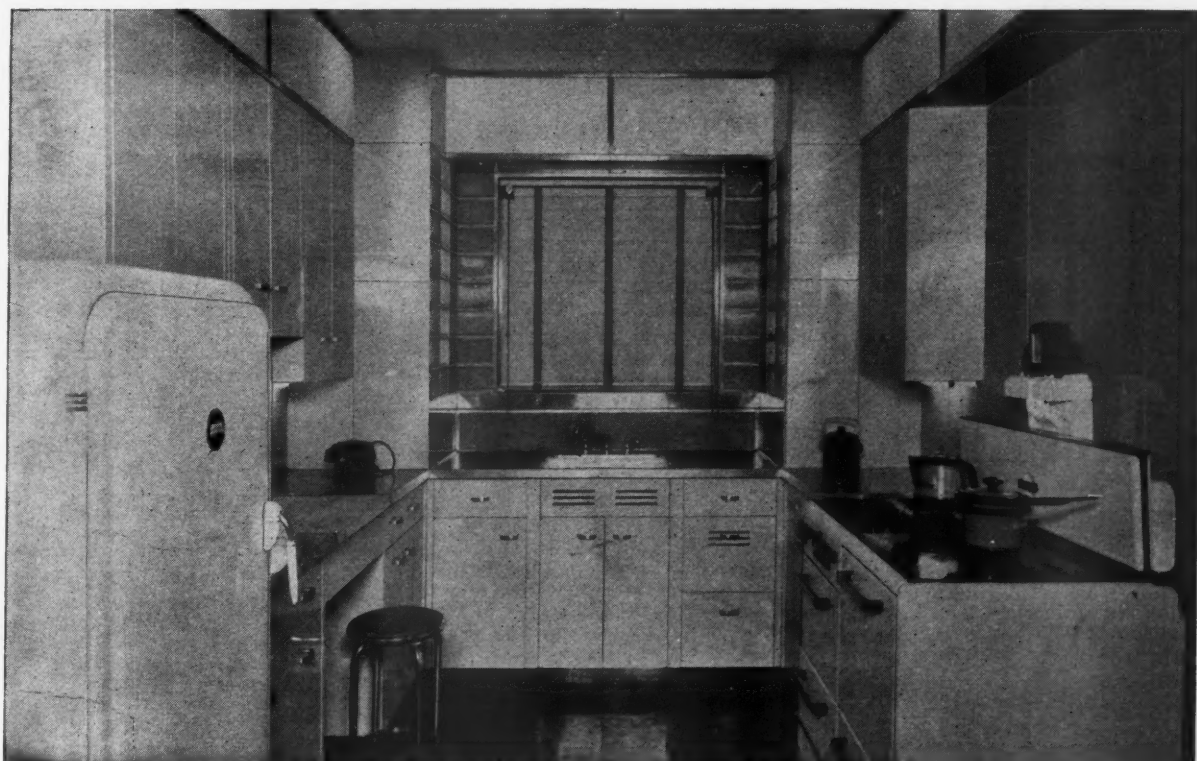
BALSAM-WOOL...PRODUCTS OF WEYERHAEUSER...NU-WOOD



VITROLITE BATHROOM, Elizabeth K. Behr, Decorator. Wainscoting of Ivory Vitrolite with Claire de Lune pointing to match fixtures.



VITROLITE BATHROOMS AND KITCHENS MAKE SELLING AND RENTING EASIER...



VITROLITE KITCHEN by Miss Lovatt, Philadelphia. Walls of Suntan Vitrolite with red Vitrolite base. Lighting panels over window and cabinets are of Ivory Vitrolux.

Modern Vitrolite Kitchens and Bathrooms in your homes and buildings will instantly increase their sales and renting value. Frequently they are the deciding factor in closing a profitable contract or a favorable lease.

A gleaming, color-bright Vitrolite Kitchen or Bathroom has features that instantly impress prospective purchasers and renters—men as well as the women.

Vitrolite is strikingly modern in beauty. Its design possibilities are endless. It adds irresistible eye-appeal. Its gleaming, grease-steam- and moisture-resisting surface instantly suggests *easy cleaning*. Its glass-hard finish foretells *long service*.

Send For New Literature

Our latest literature, describing and illustrating newest examples of Vitrolite Structural Glass in modern kitchens and

bathrooms, is now ready. Check, sign and send the coupon for this information. Libbey-Owens-Ford Glass Company, 1323 Nicholas Bldg., Toledo, Ohio.

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Make certain your Vitrolite installation
is made by a franchised L-O-F dealer

You Get All These Advantages

- No Side Drift
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in the New Model "J"

Rō-WAY

OVERHEAD TYPE GARAGE DOOR
FOR RESIDENCES

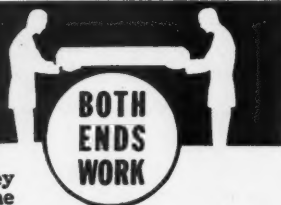
*Here's the
Reason!*

One look at the New Model "J" Ro-Way Door will immediately show you how all these advantages are made possible. You will see that it embodies a new lifting principle, so simple and so effective that you must wonder why it has not been used before. First of all, you will find only *one* spring is used, but that *both* ends of this spring work. You will note that the vertical tracks are attached directly to the door jamb . . . no offset brackets are needed. You will see that no turnbuckles are required for balancing, because the door is always self-balancing in operation. We call this simplified lifting "self-equalizing power" . . .

Rō-Tō Live Spring (Patented)

It consists simply of one powerful single coil. One end of it is attached to the rotating ball bearing shaft which carries the far sheave, or pulley. The other end of the spring is attached to the near sheave, or pulley, as shown in the large illustration. Closing the door immediately starts both ends of the Rō-Tō Live Spring into operation.

No "Lazy-Lift"
on *EITHER* side -



One pulley turning one way and the other pulley another way results in double-quick coiling of the spring and double storage of lifting power. Now, when the door is opened, immediately this stored double power is transmitted smoothly, evenly, quietly to both ends of the door in a powerful, balanced lift, which is absolutely vertical . . . always free from side-drift, binding and sticking. It cannot jump the track.

Much Simpler to Install

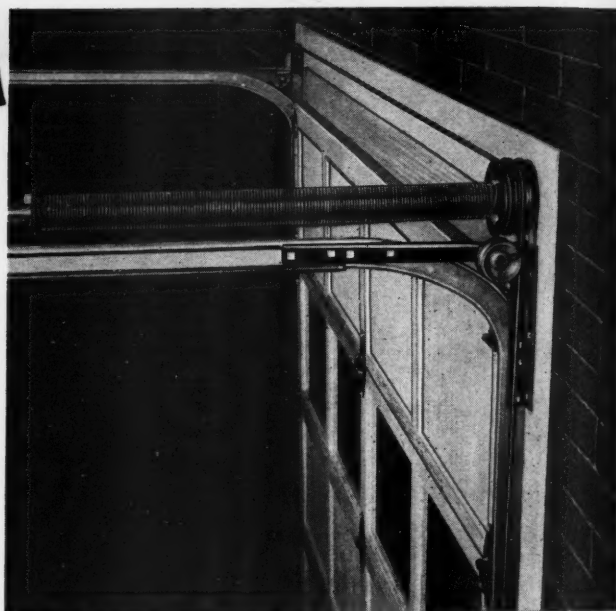
The New Ro-Way Model "J" Door is very easily and quickly installed, because of fewer parts, attaching of vertical tracks directly to door jambs and small requirements for side and headroom. Required sideroom, 3½"; required headroom, 9" for J-WA; 14" for J-Y.

Get all the facts about this sensational new type door . . . already in use in nearly 4,000 residence garages. Illustrated Folder sent Free on request.

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Ro-Way Model "J" Door Installed in One-car Garage.



Ro-Way Model "J" Door, Installed in Double Garage.

{ Other Models of Ro-Way Doors are available for all sizes . . . all buildings . . . electrically operated if desired. }

"YOUR DRIVEWAY CAN
BE READY TOMORROW — I'LL
USE MARQUETTE HIGH EARLY
STRENGTH CEMENT"



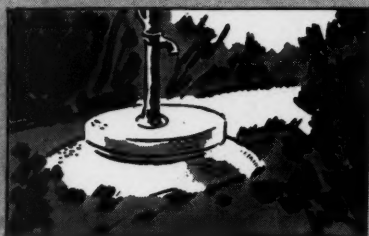
" — FINE —
THEN YOU GET
THE JOB! "

HERE ARE SMALL JOBS ON
WHICH MARQUETTE ^{HIGH EARLY} ~~STRENGTH~~
CEMENT GIVES YOU MORE
PROFIT AND BETTER SELLING
POINTS

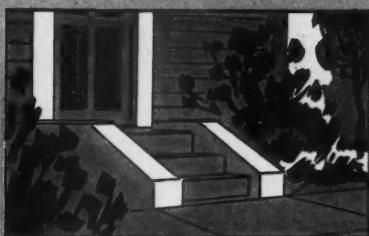
(Below) RIBBON CONCRETE DRIVEWAY



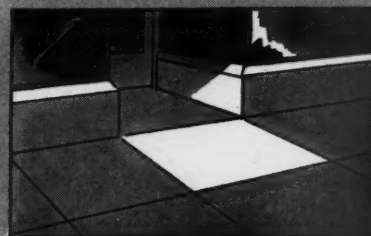
BIG BUSINESS IN SMALL JOBS WITH MARQUETTE HIGH EARLY STRENGTH CEMENT



CONCRETE WELL PLATFORM



CONCRETE STEPS



REPLACE BROKEN SIDEWALK SLABS

On every street in town . . . on every farm . . . are small concrete jobs . . . waiting to be done. You can get orders for many of these when you show owners that concrete can be *placed today and used tomorrow.*

Consider your customer's convenience and sell him "24 hour concrete."

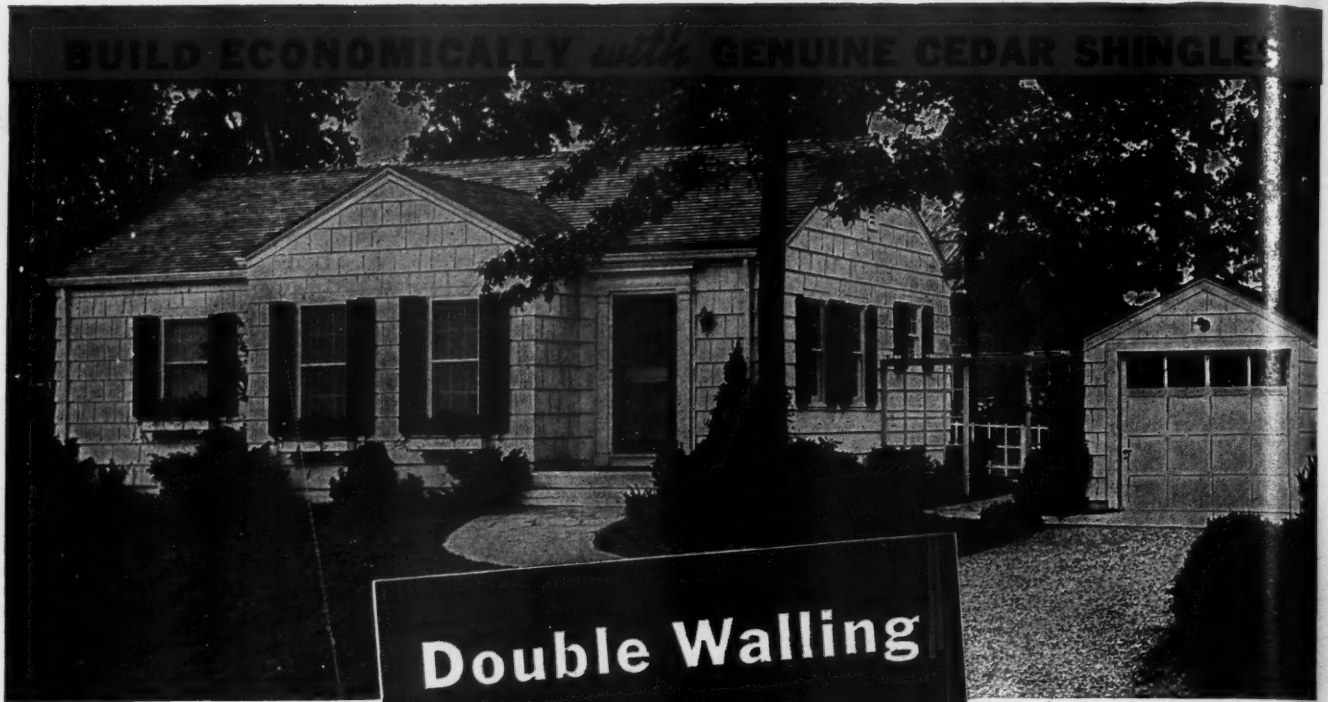
Marquette High Early Strength Cement is a *big sales help* in securing *small jobs*—for example, the added cost of a High Early Strength Concrete well platform is less than 25c and it's ready for service in 1/7th the time required for ordinary cement.

IDENTIFY YOURSELF WITH
MARQUETTE — IT PAYS



MARQUETTE CEMENT MANUFACTURING COMPANY
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Get the free, illustrated 72-page "User's Manual" on Marquette High Early Strength Cement. It is full of examples of how time can be saved and money can be made on concrete jobs. Send for it today.



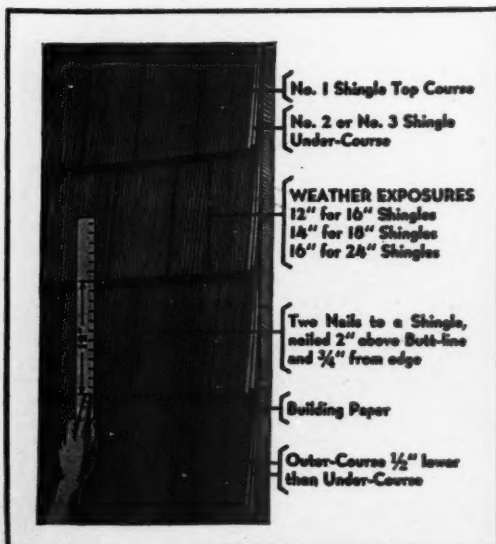
Double Walling *Plus* Free Insulation

The Famous Certigrade Home

Engineering research has developed a simple method by which two layers of shingles are laid, one over the other, for building substantial and well insulated side walls—at no additional cost because the shingles are put on with a wider exposure to the weather. Note the illustration below for detailed particulars.

Here is the formula for figuring the cost of double-walling . . .

Add together price of No. 1 Shingles for upper course and No. 2 or 3 Shingles for under course. Multiply by standard weather exposure (5" for 16" Shingles, 5½" for 18" Shingles and 7½" for 24" Shingles). Now, divide this by desired weather exposure (recommended maximum of 12" for 16" Shingles, 14" for 18" Shingles and 16" for 24" Shingles). Your last figure is the price per hundred square feet for double-coursed wall surface.



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This Handbook, compiled by a wood technologist and shingle applicator, contains 100 pages detailing and illustrating the uses, application and technical data concerning Certigrade officially inspected Red Cedar Shingles. Mailed free on request. Write Red Cedar Shingle Bureau, Seattle, Wash., U. S. A., or Vancouver, B. C., Canada.

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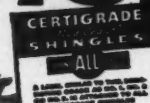
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Red Cedar

Shingles

Certigrades pass official inspection for grade and quality.

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"I show them why it's trouble-proof, explain the patented weather-stripping feature—the ease of operation—the economy of WOOD sash.

"Then I explain why it can't stick, rattle or swing in the wind—how easy it is to clean from the inside—the absence of unsightly hardware.

"Next, I show 'em how the insulating glass and screen fit each unit. That really gets them. They've never seen anything like that before.

"Last, to clinch the sale, I show them the air-leakage tests by Pittsburgh Testing Laboratory which indicate that Silentite is the best of all casements for saving fuel dollars!"



When people who want casement windows see *this* casement, the sale is pretty well made. Let the Silentite Casement sell trouble-proof windows for you. Do as thousands of other builders have done—get better acquainted with Curtis Woodwork for profit and satisfaction.

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SERVICE BUREAU**

Dept. AB-9C - Clinton, Iowa

1866
**CURTIS
WOODWORK**

SILENTITE
Pre-Fit
FRAME • WINDOW • SCREEN AND STORM SASH

If you live in Canada—write to 25 Bayswater Ave., Ottawa, Ontario, for information.

Curtis Woodwork Is Sold by
Reliable Dealers Everywhere

AND OTHER CURTIS PRODUCTS—Silentite Double Hung Windows • Exterior and Interior Doors • Frames Trim • Entrances • Moldings • Panel Work • Kitchen Cabinets • Cabinet Work • Mantels • Stairways Shutters • Screens • Storm Doors and Windows Garage Doors • Mitertite Door and Window Trim.

TEST RESULTS—AIR LEAKAGE

Casement Tested	Cu. Ft. per Hr. Total for Entire Unit	Cu. Ft. per Hr. per Ft. Sash Perimeter
1. Silentite Casement—Weather-stripped	316.2	19.97
2. Casement—B	411.0	22.10
3. Casement—C	727.2	42.8
4. Casement—D	1128.0	62.88
5. Average of Casements C and D, with storm sash, providing added air seal	572.4	32.28

Write for This Complete Test

THE "INSULATED" CASEMENT WINDOW

CURTIS COMPANIES SERVICE BUREAU, Dept. AB-9C, Clinton, Iowa
Please give me details on the Curtis Silentite Casement, including Pittsburgh Testing Laboratory data ☐ Send information on 1938 Woodwork Styles by Curtis ☐

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The Building Estimator's Reference Book

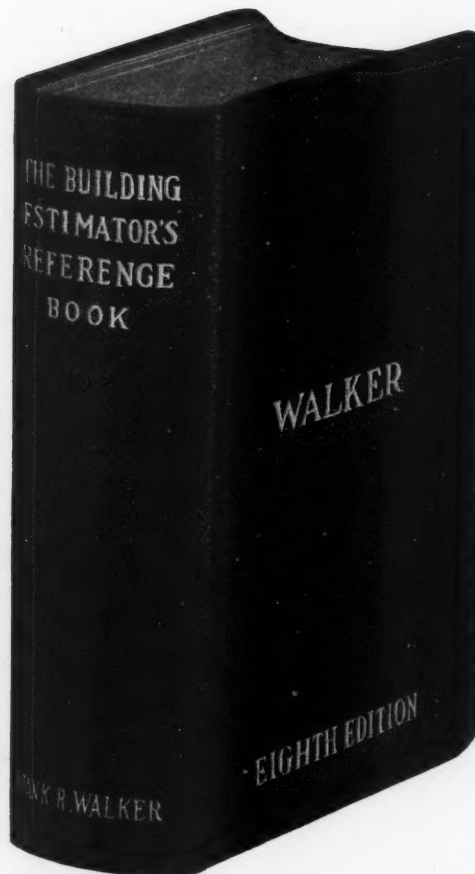
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—and here's the story
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on the job!



1 It's an easy material to handle on the scaffold—even on windy days.



2 It's applied horizontally—tying 7 studs together instead of the usual 4.



3 Eliminates mis-nailing—studs are in plain view always—don't have to be exactly centered.



4 Cut-outs for windows and angles can be made on the scaffold instead of measuring and cutting on the ground.



5 Tongue and Groove Joint makes it easy to slide short pieces into place.

USG 2' x 8' T&G Asphalt Coated Sheathing—the handy one-man sheathing—combines (1) horizontal application (2) an asphalt coating (3) tight joints (4) rigid board type insulation for winter fuel saving and greater summer comfort. Other sheathings have had one or more of these features, but this is the first time in building history *all* have been com-

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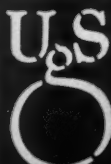
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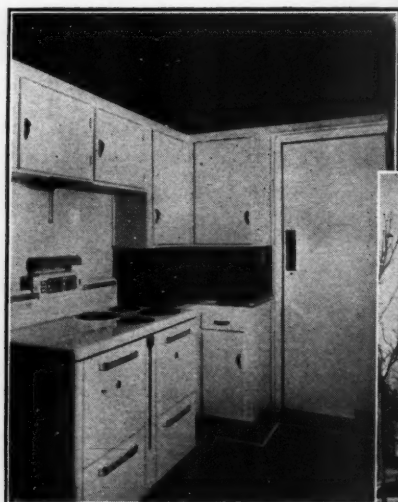
HALL



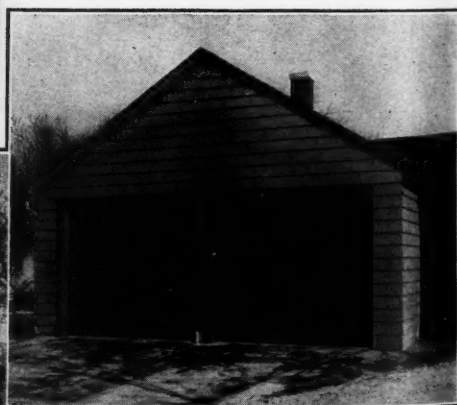
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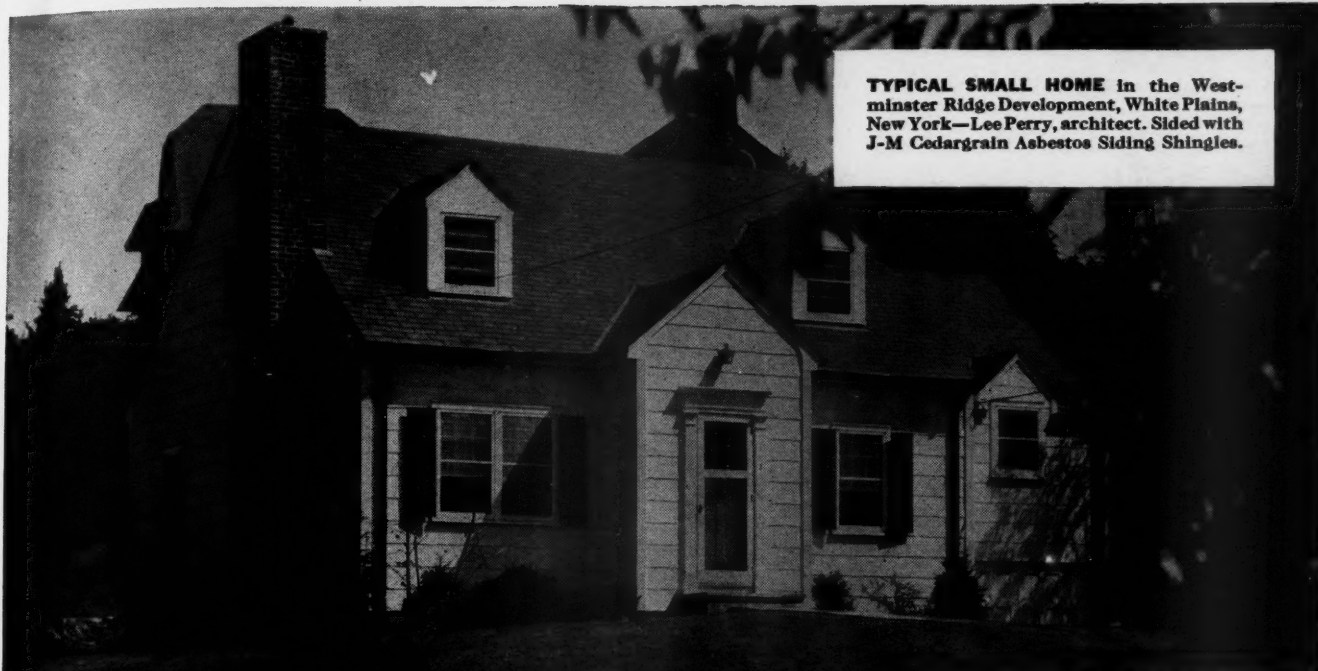
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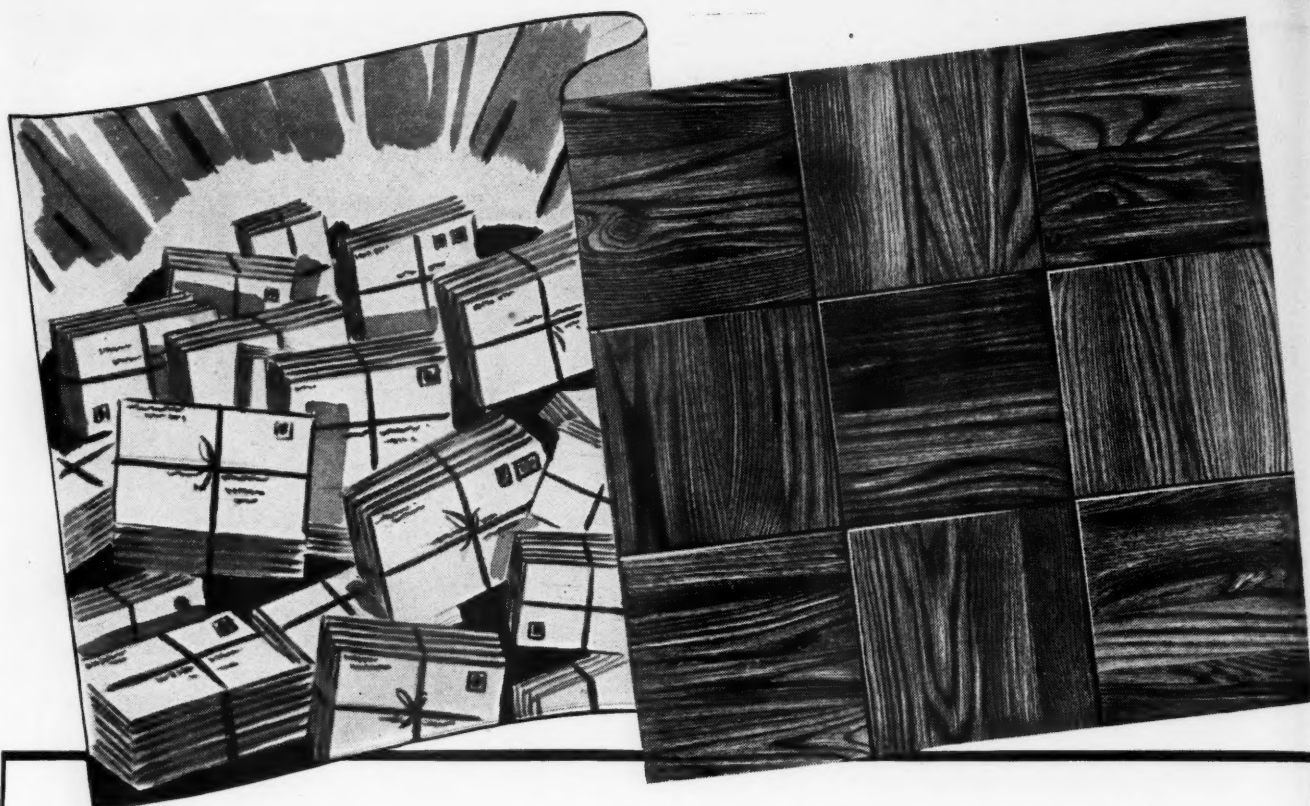
Furnished free to builders who use J-M products, it is a silent salesman—tells buyers you have used quality products. Ask for details.



NEW HOUSES LIKE THESE in all sections of the country are sided with J-M Asbestos Shingles. Builders report enthusiastic buyers—fast sales.



JOHNS-MANVILLE ASBESTOS SIDING SHINGLES



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